Index Number

This Issue Exceeds 104,600 Copies

THE JOURNAL

OF THE

American Medical Association

Subscription, $8.00 — PUBLISHED WEEKLY — Single Copies, 25 Cents

VOLUME 120, No. 17

COPYRIGHT, 1942, BY AMERICAN MEDICAL ASSOCIATION

535 North Dearborn Street, Chicago, Ill.

DECEMBER 26, 1942

CONTENTS AND SUBJECT INDEX

Renal Complications Due to Sulfadiazine. Major Duward O. Wright and Major Roy E. Kinsey....1351

Complete Anuria Caused by Sulfadiazine. Alexander L. Louria, M.D., and Charles Solomon, M.D., Brooklyn 1354

Lesions Involving Colectomy. F. H. Lahey, M.D., and Eric Sanderson, M.D., Boston.....1356

Carcinoma of the Colon. Harvey B. Stone, M.D., and Samuel McLanahan, M.D., Baltimore.....1362

Papers of Drs. Lahey and Sanderson and Drs. Stone and McLanahan discussed by Drs. Mayo, Cave, Allen, Lahey and Stone.

Gastrointestinal Disease Among Industrial Workers. L. C. McGee, M.D., Wilmington, Del., and J. D. Creger, M.D., Pulaski, Va...1367

Discussed by Drs. Shillito, Osborn and McGee.

Syphilis Among Men of Draft Age. R. A. Vonderlehr, M.D., and Lida J. Usilton, M.A., Washington.1369

Syphilis in Children. I. Michael Levin, M.D.; Samuel J. Hoffman, M.D.; David S. Koransky, M.D.; Irving B. Richter, M.D., and Bernard Gumbiner, M.D., Chicago.1373

Discussed by Drs. Hoffman and Levin.

Meningoencephalitis. A. B. Sabin, M.D., and Charles D. Aring, M.D., Cincinnati 1376

PHYSICIANS WANTED FOR RELOCATION TO MEET CIVILIAN NEEDS

See Page . . . 1399

CLINICAL NOTES

Diverticula of Male Urethra. H. G. McGavran, M.D., Detroit.....1381

The Promotion Depression. Norris B. Flanagan, M.D., Boston...1383

Compound Fractures. C. J. Frankel, M.D., and R. V. Funsten, M.D., Charlottesville, Va.....1384

Intestinal Obstruction. Harold Stadler, M.D., Iowa City.....1384

SPECIAL ARTICLES

Cocoanut Grove Disaster. N. W. Faxon, M.D., and E. D. Churchill, M.D., Boston.....1385

Handbook of Nutrition: XI. The Water Soluble Vitamins. C. A. Elvehjem, Ph.D., Madison....1388

COUNCIL ON PHYSICAL THERAPY 1397

MEDICINE AND THE WAR 1402

ORGANIZATION SECTION 1404

(Index continued on next page)

INDEX

List of Journals Indexed.....1445

Index to September-December Reading Matter in The Journal and to Current Medical Literature...1447

Index to Authors.....1498

READY IN JANUARY—**Weiss & English's Psychosomatic Medicine**

Entirely New Book!—This *new* book is an event in medical publishing of special timeliness and significance. It deals with the relation of the emotions to problems in general practice, explains the psychic factors in illness and disease and tells how to diagnose and treat patients with disorders of psychic or mental origin. As the subtitle states, it is the *clinical application* of psychopathology to general medical practice.

But more than that (and this is the *really vital feature* of this new book), it approaches these problems from the viewpoint of the general physician and surgeon and does not presuppose the reader having a full background in psychiatry. Written by an internist broadly trained in psychological medicine and by a trained psychiatrist, the book has been meticulously thought out and planned for use in everyday practice. Its specific purpose is to give you the guidance, long sought but heretofore unavailable, in the diagnosis and treatment of those problem cases which are estimated to constitute one-third of the general practitioner's practice.

Here, in fact, is a *clinical* book—a book based on extensive practical experience—that will help you separate the social and emotional factors from the bare medical findings; guide you in the evaluation of this evidence; and advise you in the approaches and methods found successful in treating the patient.

By EDWARD WEISS, M.D., Professor of Clinical Medicine; and O. SPURGEON ENGLISH, M.D., Professor of Psychiatry, Temple University Medical School, Philadelphia. 687 pages, 6" x 9", illustrated.

Other SAUNDERS BOOKS Described on Pages 3, 4, 5

EDITORIALS

Blast Injuries.....1398
Metabolism of Radioactive Iron.1399

CURRENT COMMENT

Medals of the Army Medical Department.....1400
New Syndrome.....1400
The Pepper Hearings.....1401
More About Vitamin P.....1401
Sodium Salts of Sulfonamides..1401

Acid, *p*-aminobenzoic *1395
ascorbic *1396
nicotinic *1391
pantothenic *1392
Addison's Disease, desoxycorticosterone in.ab-1430
Advertisers, waste vs. conserve paper...C-1414
Allergy, Fifth Annual Forum on.....1409
hemorrhagic reactions to tuberculin...ab-1430
insulin ab-1432
to house dust.....1444
American Hospital Association.....1406
Medical Women's Association cancels meeting 1409
Amphetamine sulfate for migraine.....ab-1427
Anemia from dinitrotoluene.....ab-1426
pernicious, of pregnancy.....ab-1436
Army, U. S., medals of.....E-1400
Arteries, coronary, ligation.....ab-1425
Australia, medical outlook in.....OS-1405
Basic science act defeated, California...OS-1405
Biotin *1394
Blast, low pressure phase.....ab-1436
injuries E-1398
Blood, circulatory overloading after intravenous injection ab-1435
fate of transfused erythrocytes.....ab-1437
plasma protein after hemorrhage.....ab-1435
sulfadiazine levels preceding hematuria.*1353
transfusion, convulsions after.....1443
vitamin C level to detect scurvy.....ab-1430
volume, head down feet up position to measure C-1414
Board Examinations.....1422
Book Notices.....1439
Books Received.....**Adv. page 34**
Boston, Cocoanut Grove disaster.....*1385
Brain, abscess, otogenic.....ab-1436
hemorrhage; resuscitating newborn.....1444
lesions after neoarsphenamine.....ab-1431
Breast hypertrophy in the male.....E-1400
British Medical Students' Association.....1410
Bronchiectasis in soldiers.....ab-1436
Bronchopneumonia, silent ab-1432
Bureau of Legal Medicine and Legislation..1423
Burns, Cocoanut Grove disaster.....*1385
cod liver oil for.....ab-1434
Caldwell, B. E., resigns.....1406
California basic science act defeated...OS-1405
Canada, health insurance in.....1404
Cancer in osteopoikilosis.....ab-1428
syphilis in; use of sobisminol mass.....1444
trauma in relation to.....MI-1423
Chadwick Lectures 1409
Child care, state committee on, N. Y.....1407
Chorionic Carcinoma, extragenital.....ab-1429
Citrin (vitamin P) *1396; E-1401
Cleveland Health Museum.....1408
Coccidioidomycosis, secondary ab-1434
Cod liver oil for wounds and burns.....ab-1434
Cold, therapeutic use.....ab-1430
Colectomy, technic *1356
Colon, cancer involving right colectomy...*1356
cancer, resection; anastomosis.....*1362
Convulsions after transfusion.....1443
Correspondence.....1413
Council on Medical Education and Hospitals.1415
Council on Physical Therapy.....1397
Deaths.....1412
Dementia Paralytica, Illinois program.....1406
Dentistry, mobile unit, Mich.....1407
Diabetes Mellitus, insulin allergy.....ab-1432
origin; progress ab-1431
Digitalis vs. lanatoside C.....ab-1425
Disaster, Cocoanut Grove in Boston.....*1385
Drugs, increasing use, Germany.....1403
Dust, house, allergy to.....1444
Encephalitis and veterans' compensation.ab-1438
postvaccinal ab-1426
Erythrocytes, transfused ab-1437
Fire, Boston Cocoanut Grove disaster.....*1385
Foreign Letters.....1410
Foundations, Parmly 1406
Fractures, compound, sulfonamides locally.*1384
Gallbladder, signs in pancreas disease...ab-1429
Gastrointestinal disease in workers; relation to holidays *1367
Gonorrhea, fever plus sulfapyridine for..ab-1436
Guzman, Leonardo, radiologist on tour.....1406
Harben lectures 1409
Health center, new, Kentucky.....1407
under Hitler 1403
Hematuria, blood sulfadiazine levels.....*1353
Hemoglobin, alkaline hematin test.....ab-1435
Hemorrhage, plasma protein after.....ab-1435
Holidays, workers absenteeism.....*1367
Hospitals, Rhode Island, volunteer service at.1408
Welfare, now Goldwater.....1407
Ileitis, regional, right colectomy for.....*1359
Illinois Neuropsychiatric Institute.....1406
Indigestion in industrial workers.....*1367
Industrial dermatosis, wartime.....ab-1433
hazard: dinitrotoluene ab-1426
gastrointestinal disease; holidays.....*1367
Infants, intestinal obstruction.....*1384
newborn, resuscitation, brain hemorrhage.1444
Infection, psychoses after.....ab-1438
Injections, intravenous, circulatory overloading after ab-1435
Inositol *1395
Insulin allergy ab-1432
Insurance, health, Australia.....OS-1405
health, Canada OS-1404
Intestines, anastomosis, for colon cancer..*1362
obstruction, in newborn; clinical signs; x-ray negative *1384
Iron, radioactive, metabolism.....E-1399
Jaundice, spirochetal ab-1426
Kidneys, complications from sulfadiazine..*1351
Lanatoside C, electrocardiogram.....ab-1425
Lapicque, Louis, arrested.....1409
Leptospirosis ab-1426
Leydigism, new syndrome.....E-1400
Lymphogranuloma Venereum, meningoencephalitis from virus.....*1376
Malaria in the Americas.....1411
Mapharsen intravenously for syphilis.....*1373
Marriages.....1411
Medical and Surgical Relief Committee.....1403
Medical Education and British students.....1410
continuation courses *1415
Medical Examinations and Licensure.....1422
Medical Service, outlook, Australia.....OS-1405
Medicine, state, England.....1410
Medicine and the War.....1402
Bushnell General Hospital.....1402
course in ophthalmology, Va.....1408
Health for Victory Conference, Mich.....1407
industrial workers loss of time.....*1367
*di*nitrotoluene exposure ab-1426
Pepper hearings E-1401; C-1414
physicians willing to be "dislocated" and those over 45.....E-1399
Rhode Island Hospital, volunteer service..1408
Rochester (N. Y.), General Hospital Unit.1402
Roger Brooke Hospital commissioned.....1402
skin trauma.....ab-1433
syphilis in men of draft age.....*1369
war medicine and surgery, New York..1407
war program at Texas.....1408
Medicolegal Abstracts.....1423
Meetings, Coming Meetings.....1424
Meningitis, pneumococcic.....ab-1430
Meningoencephalitis, lymphogranuloma venereum virus causing.....*1376
Migraine, amphetamine sulfate for.....ab-1427
Munitions, *di*nitrotoluene hazard.....ab-1426
Myocardium, lanatoside C vs. digitalis...ab-1425
Negroes, meningoencephalitis in.....*1376
syphilis in.....*1372
Neoarsphenamine, cerebral lesions after.ab-1431
Nephritis, glomerular.....1443
New York Academy, new officers.....1407
News.....1406
*di*Nitrotoluene, industrial hazard.....ab-1426
Nurses, psychiatric training.....1406
Nutrition, HANDBOOK OF NUTRITION.....*1388
O'Brien, E. J., at Pepper hearings.....C-1414
Ophthalmology, course, Va.....1408
Organization Section.....1404
Osteoarthritis, tuberculous, Volkmann's dry caries in.....ab-1438
Osteomyelitis, subperiosteal resection; plug bone defects.....ab-1437
Osteopoikilosis with cancer.....ab-1428
Pan American Sanitary Conference.....1411
Pancreas, disease.....ab-1429
function altered in duodenal ulcers...ab-1437
Paper, waste by advertisers.....C-1414
Pepper hearings E-1401; C-1414
Peptic Ulcer, drip method for.....ab-1426
duodenal, pancreas function altered.ab-1437
obstructed ab-1425
Physicians, continuation courses.....*1415
positions open, Pa.....1408
those over 45.....E-1399
Pneumonia a complication of silicosis?..ab-1433
atypical, "virus" ab-1431
Poliomyelitis, National Foundation.....1409
Pregnancy, pernicious anemia of.....ab-1436
vitamin K, when to administer in.....1443
what is normal monthly gain.....1443
Presse médicale; Lapicque arrested.....1409
Prizes, Grocery Manufacturers.....1409
Oberlin Award.....1407
U. S. Army Medical Dept. medals.....E-1400
Promotion depression.....*1383
Prostate resection, urethra diverticula.....*1381
Psychoses, postinfectious.....ab-1438
Pylorus, obstructed peptic ulcer.....ab-1425
Pyridoxine *1392
Queries and Minor Notes.....1443
Radioactive iron, metabolism of.....E-1399
Radiologist, Dr. Guzmán on tour.....1406
Red Cross, American, scholarships.....1409
Riboflavin *1390
Rickets, vitamin D_2 mass in.....ab-1438
Roentgen Therapy, contact.....ab-1428
Scholarships, American Red Cross.....1409
Schools, Medical, British after 3 years.....1410
Scott, Sir H. Harold, retires.....1409
Shock diagnosis: position for.....C-1414
Silicosis, pneumonia a complication?....ab-1433
Skin, wartime trauma.....ab-1433
Social hygiene instruction, schools reject...1407
Society Proceedings.....1424
Spermatozoa, viability in vagina.....ab-1437
aspermatogenesis E-1400
Spine, intervertebral disk, ruptured....ab-1428
Stanford, high school seniors eligible.....1406
State Board Examinations.....1422
Sterilization, sexual, Calif.....1406
Sternum marrow, samples, variations...ab-1427
Students, Medical, British association.....1410
Sulfadiazine, complete anuria.....*1354
renal complications.....*1351
Sulfonamides, locally in compound fractures.*1384
photosensitivity ab-1435
sodium salts of.....E-1401
Surgery, give fluids to patients.....ab-1433
Syphilis in infants, mapharsen.....*1373
in men of draft age.....*1369
sobisminol mass orally in.....1444
Thiamine hydrochloride.....*1389
Tonics and Sedatives.....**Adv. page 28**
Tuberculin, hemorrhagic reaction to....ab-1430
Tuberculosis, combat, England.....1411
primary, complications.....ab-1429
pulmonary, oral suction treatment.....ab-1437
Typhus in California.....ab-1431
University of Texas.....1408
U. S. Congress, low death rate in.....1409
Urethra diverticula after prostate resection.*1381
Urine, anuria from sulfadiazine.....*1354
Vagina, spermatozoa viability in.....ab-1437
Veins, measure blood output in.....C-1414
Veterans' compensation and encephalitis.ab-1438
Vitamin C deficiency, detection.....ab-1430
D_2, massive doses in rickets.....ab-1438
in commercial concentrates.....*1397
K, when to give in pregnancy.....1443
P (citrin) *1396; E-1401
water soluble.....*1388
Whooping Cough, polyneuritis from....ab-1438
Woman's Auxiliary.....1405
Workmen's Compensation Acts: cancer..MI-1423
embolism; cerebral.....MI-1423
World War II, bronchiectasis.....ab-1436
American doctors in New Zealand.....1403
blast injuries E-1398
health under Hitler.....1403
heroes: Lieut. Kearney.....1402
heroes, U. S. Naval Hospital at Pearl Harbor cited for service.....1402
medical schools after 3 years'.....1410
Lapicque arrested; *Presse médicale*.....1409
Wounds, cod liver oil for.....ab-1434
Yellow Fever, postvaccinal encephalitis..ab-1426

THE JOURNAL of the American Medical Association is published weekly by the American Medical Association, 535 North Dearborn Street, Chicago, Ill. Subscription price, $8.00 a year. 25c a copy. Canadian $9.50. Foreign $12.00. Entered as second class matter June 25, 1885, at the Postoffice at Chicago, Ill., under Act of March 3, 1879.

ERYTHROL TETRANITRATE MERCK
For Prolonged Vasodilatation in Arterial Hypertension
COUNCIL ACCEPTED
MERCK & CO. Inc.
Manufacturing Chemists
RAHWAY, N. J.

The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. 120, No. 17 — CHICAGO, ILLINOIS — DECEMBER 26, 1942

COPYRIGHT, 1942, BY AMERICAN MEDICAL ASSOCIATION

RENAL COMPLICATIONS DUE TO SULFADIAZINE

MAJOR DUWARD O. WRIGHT
MEDICAL CORPS, ARMY OF THE UNITED STATES
AND
MAJOR ROY E. KINSEY
MEDICAL CORPS, ARMY OF THE UNITED STATES

The more recent literature concerning untoward effects of sulfadiazine on the kidney with at least one death testifies to the dangerous qualities of this drug. Early experimental and clinical reports were quite optimistic.[1] Trevatt, Nelson and Long [2] reported only 4 instances of hematuria among 125 patients given sulfadiazine. Billings and Wood [3] treated 105 patients with pneumonia, using sulfadiazine, without a single renal complication. Finland, Strauss and Peterson [4] reported only 3 cases of hematuria in a series of 446 patients treated with sulfadiazine. More recently Hellwig and Reed [5] reported a case of fatal anuria following sulfadiazine therapy in which they described the pathologic condition in the kidney as being similar to that seen in mercury bichloride poisoning. Keitzer and Campbell [6] reported 11 cases of renal irritation during and after sulfadiazine therapy. Four of their 11 cases required cystoscopy while the remaining 7 responded to conservative therapy. They concluded that sulfadiazine is safe with a dosage of 4 Gm. a day and a blood level of not more than 8 mg. per hundred cubic centimeters. Raines [7] stresses the importance of daily quantitative and qualitative examinations of the urine.

During the six months that we have been using sulfadiazine here there have been numerous cases of renal irritation ranging from mild tenderness over the kidney to severe anuria. While we were using the other sulfonamides there were renal complications, but not as frequently as with sulfadiazine. The latter drug gives one a false sense of security in that less toxic reactions in other systems are manifest in the patient.

Sulfadiazine has been used in the therapy of 38 patients during April, May, June and July 1942 in the infectious disease wards and the patients have been followed carefully. There were 7 instances of hematuria, and we wish to report these cases in detail:

REPORT OF CASES

CASE 1.—G. W. I., a white youth aged 21, was admitted May 8, 1942 for nausea and vomiting. With intravenous fluids and mild sedation the nausea and vomiting cleared, but the following day a headache and stiff neck developed and spinal puncture revealed cloudy fluid containing meningococci. Because of the previous nausea and vomiting he was given 5 Gm. of sodium sulfadiazine in 100 cc. of distilled water intravenously. One hour later he complained of severe abdominal and bilateral renal pain. On examination there was exquisite tenderness over both kidneys and some abdominal muscular spasm. In the following twenty-four hours he passed only 200 cc. of grossly bloody urine containing innumerable red blood cells and many white blood cells but no crystals. During the second twenty-four hours the output increased to 700 cc. and in the third twenty-four hours to 860 cc. The patient had received 2,000 cc. of oral fluid and 2,000 cc. of parenteral fluids within the twenty-four hours prior to the onset of symptoms, and his output had been approximately 1,100 cc. With the onset of symptoms fluids were forced intravenously, and an attempt was made to alkalize the urine. The renal tenderness, abdominal pain and hematuria disappeared on the third day and the urinary output reached normal on the fourth day. The meningitis was treated successfully with sulfanilamide and recovery was uneventful.

CASE 2.—S. W. B., a white man aged 24, admitted May 22, 1942 for repair of a cicatrix on his right hand, had an infection in the incision with an elevation of temperature and pain. On May 23 sulfadiazine therapy was started with an initial oral dose of 4 Gm. followed by 1 Gm. every four hours. On May 25 the patient had a mild microscopic hematuria with a sulfadiazine blood level of 7 mg. per hundred cubic centimeters. The drug was withheld for twelve hours and the urine returned to its normal state; then the drug was resumed. Twelve hours later, after an additional 3 Gm., abdominal pain, nausea and vomiting appeared. The urinary output diminished and microscopic examination showed many red blood cells, a few sulfadiazine crystals and an occasional pus cell. Renal pain and tenderness developed but there was no severe colic. All physical and laboratory abnormalities disappeared within twenty-four hours on conservative therapy. The total dose of the drug was 12 Gm. over a period of four days, and the urinary intake during the four days ranged between 2,000 and 4,000 cc. and the output 800 to 1,200 cc. During the twenty-four hours after the onset of abdominal pain the output fell to 75 cc.

CASE 3.—E. R. S., a white youth aged 19, was admitted April 25, 1942 for multiple puncture wounds of the abdomen with multiple perforations of the small intestine and mesentery. Owing to the patient's critical condition the wounds were repaired under local anesthesia and a small amount of pentothal

Prepared under the supervision of Col. James M. Troutt from the records of the Station Hospital at Camp Blanding, Florida.

Released for publication by the War Department Manuscript Board, which assumes no responsibility, other than censorship, for the contents of this article.

Capt. J. A. McKenzie, Chief of the Genital-Urinary Section, Station Hospital, Camp Blanding, Florida, cooperated in this work and was frequently seen in consultation.

1. Reinhold, J. G.; Flippin, H. F.; Schwartz, Leon, and Domm, A. H.: The Absorption, Distribution and Excretion of 2-Sulfanilamido Pyrimide in Man, Am. J. M. Sc. **201:** 106-115 (Jan.) 1941. Long, P. H.: Sulfadiazine, J. A. M. A. **116:** 2399-2400 (May 24) 1941.
2. Trevatt, G. I.; Nelson, R. A., and Long, P. H.: II. Studies in Sulfadiazine, Bull. Johns Hopkins Hosp. **69:** 303 (Oct.) 1941.
3. Billings, F. T., Jr., and Wood, W. B., Jr.: III. Studies on Sulfadiazine, Bull. Johns Hopkins Hosp. **69:** 314 (Oct.) 1941.
4. Finland, Maxwell; Strauss, Elias, and Peterson, O. L.: Sulfadiazine, J. A. M. A. **116:** 2641 (June 14) 1941.
5. Hellwig, C. A., and Reed, H. L.: Fatal Anuria Following Sulfadiazine Therapy, J. A. M. A. **119:** 561-563 (June 13) 1942.
6. Keitzer, W. A., and Campbell, J. A.: Renal Complications of Sulfadiazine, J. A. M. A. **119:** 701-703 (June 27) 1942.
7. Raines, S. L.: Ureteral Obstruction Following the Use of Sulfadiazine, J. A. M. A. **119:** 496-497 (June 6) 1942.

sodium. The following afternoon respiratory distress developed, with cough, expectoration, a decided increase in the temperature and physical findings of either atelectasis or pneumonia in the right lower lobe. Examination of the sputum revealed large numbers of type XXIII and XXVIII pneumococci, and x-ray examination revealed consolidation of the right lower lobe but the findings were not typical of either pneumonia or atelectasis. Sulfadiazine therapy was instituted on the evening of April 27. Owing to the visceral trauma, the drug was given intravenously in 3 to 5 Gm. doses of 5 per cent solution in distilled water. Approximately thirty-six hours later, after 20 Gm. had been given, the blood level reached 15.4 mg., but at no other time did the level exceed 8 mg. On April 29 the level had dropped to 3.3 mg. and the following day, April 30, microscopic hematuria developed with a blood level of only 5.6 mg. Because response to the drug had been good and the urinary output was more than adequate, an additional 3 Gm. of the drug was given. After this the urine became grossly bloody and the output fell to 290 cc., less than one third of the previous day's output. The drug was discontinued and fluids were forced to 5,000 cc. Within seventy-two hours the hematuria and oliguria had cleared. With the hematuria there was exquisite tenderness over both kidneys, but it was difficult to determine whether this was due to his original wound or to the renal complications. It was assumed that the pain was renal, since the tenderness became less pronounced as the hematuria cleared. His intake of fluids was more than 3,000 cc.

TABLE 1.—*Fluid Intake, Urinary Output and Urinary Findings in Case 5*

	Days After Onset of Hematuria									
	1	2	3	4	5	6	7	8	9	10
Nonprotein nitrogen....	...	60	...	...	70	...	56	...	..	Normal
Urinary output										
Day.....	290	100	650	250	150	370	260	935		
Night.....	335	900	250	405	300	450	600	300		
Fluid intake										
Day.....	1,356	3,650	3,500	2,650	2,540	2,200	3,205	2,720		
Night.....	1,560	1,145	480	380	600	100	200	700		
Albuminuria..	Plus	Plus	0	0	0	0	0	0		
Cylindruria...	Plus	Plus	0	0	0	0	0	0		
Hematuria...	Plus	Plus	0	0	0	0	0	0		

and his output more than 1,000 cc. prior to the onset of symptoms. The patient died on May 5 from hemorrhage and peritonitis. At autopsy the kidneys were normal.

CASE 4.—E. S. K., a white man aged 22, was admitted May 1, 1942 with the diagnosis of concussion of the brain and multiple fractures of the ribs, with bilateral hemopneumothorax. The patient was recovering from his injuries satisfactorily when on May 11 pneumonia developed in the left lower lobe. Sulfadiazine was ordered on May 12, 4 Gm. being given as the first dose and 1 Gm. every four hours thereafter. With this dosage, the blood level remained below 4 mg. per hundred cubic centimeters and there was no improvement in the pneumonia. On May 14 the dose was increased to 2 Gm. every four hours and the sulfadiazine levels in the blood were as follows: On May 16 7 mg. per hundred cubic centimeters, on May 17 5 mg., on May 18 3.6 mg. and on May 21 8.5 mg.

Owing to the adequate blood concentration on May 21, and the pneumonia showing definite improvement, the sulfadiazine dosage was lowered to 1 Gm. every four hours. At noon on May 23 the patient discovered large crystals in his urethral meatus and on the glans penis. The crystals were rather large, firm and orange-yellow and dissolved easily in warm alkaline solution. One hour later the patient complained of a burning sensation on the glans penis and, a few minutes later, of severe left renal colic and abdominal pain. Within an hour there was involvement of the right kidney and the pain radiated to the testis. He voided 120 cc. of grossly bloody urine containing many large orange-yellow crystals. These crystals dissolved readily in the urine when it was warmed or alkalized. In spite of forced fluids, heat to the back and abdomen and the administration of alkalis, the patient did not void again during the next eighteen hours. The nonprotein nitrogen increased from 38 to 44 mg. per hundred cubic centimeters. The following day as he was being prepared for cystoscopy he urinated 450 cc. of grossly bloody urine, and cystoscopy was delayed. Conservative therapy was continued and the symptoms and signs abated after four days. The patient received more than 4,500 cc. of fluids daily prior to the onset of symptoms, and the urinary output was 1,200 to 1,500 cc. daily.

CASE 5.—R. E. W., a white man aged 28, admitted June 7, 1942, complained of cough, expectoration and headache. A roentgenogram showed diffuse cottony infiltration throughout the medial half of the left lower lobe, including the region of the left costophrenic angle. After having a fever for four days he was started on sulfadiazine, being given 2 Gm. at the first dose and 1 Gm. every four hours thereafter. In all, he received 6 Gm. during a period of two days. The urine was normal on admission and the output adequate, but on June 11, the day after sulfadiazine was started, the urine was grossly bloody and contained 2 plus albumin, a trace of acetone, many finely and coarsely granular casts, occasional epithelial casts, occasional pus cells and innumerable red blood cells. On June 12 the urine was essentially the same as on the previous day except that there was less albumin. On the following day, June 13, the urine was clear. The sulfadiazine level of the blood on June 12, twenty-eight hours after the last dose of the drug had been given, was 9 mg. per hundred cubic centimeters. The urinary intake and output on June 9 and 10 were not measured but were considered satisfactory. After the onset of hematuria, the output fell to 625 cc.

Table 1 shows the patient's fluid intake, urinary output and urinary findings during the ten day period following development of hematuria.

During the morning of June 11, the intake was more than 3,000 cc., but the output was limited to 290 cc. of concentrated grossly bloody urine. Although the drug was discontinued and alkalis and fluids were forced, the output was only 625 cc. for the first twenty-four hours and only 100 cc. for the following twelve hours. The urinary output was normal after seven days and the nonprotein nitrogen was normal after ten days. On June 12 and 13 there was some sacral edema.

The temperature, pulse and respiratory rates were elevated through June 13 and gradually returned to normal on June 14. A complete urologic work-up was normal after recovery from the acute stage.

CASE 6.—L. H., a white man aged 23, admitted May 21, 1942, had a severe productive cough and mild hemoptysis. X-ray studies, including instillation of iodized poppy seed oil, revealed only a chronic bronchitis. During the first four weeks of hospitalization he had a low grade fever and an elevated sedimentation rate, lost weight and expectorated 2 to 4 ounces (60 to 120 cc.) of foul sputum daily. Since the sputum contained numerous mixed organisms with spirochetes and fusiform bacilli predominating, the patient was given 1½ grains (0.1 Gm.) of neoarsphenamine June 21, followed by a moderately severe thermal reaction. The sputum diminished in amount and the odor was less foul, but the patient continued to have a low grade fever. On June 30 sulfadiazine therapy was instituted, the patient being given 8 Gm. during the first twenty-four hours and 1 Gm. every four hours for the following seventy-two hours. Because the blood level was 10 mg. per hundred cubic centimeters, the dosage was lowered to 1 Gm. every six hours, but the blood level remained at 10 mg. and on July 6 the dosage was lowered to 1 Gm. every twelve hours. The following day the blood level was again 10 mg. and the drug was discontinued. The output of urine had been adequate and the urinary sediment normal except for sulfadiazine crystals and an occasional white blood cell. After the drug had been discontinued for eighty-four hours the patient suddenly had typical left renal colic and voided bright red bloody urine. The pain was so severe that morphine was required for relief, but it gradually cleared in twenty-four hours. Besides the innumerable red blood cells in the urine there were many white blood cells and orange-yellow crystals. The urinary output remained normal and the sediment returned to normal within forty-eight hours. A urologic work-up was negative.

CASE 7.—O. E. B., a white man aged 27, was admitted May 19, 1942 with meningococcic meningitis. Sulfadiazine therapy was initiated on May 19 by the intravenous route,

the first dose being 5 Gm. in 100 cc. of distilled water. Owing to the critical condition of the patient, an additional 4 Gm. was given twelve hours later intravenously, the blood level being 5.6 mg. per hundred cubic centimeters. Sulfadiazine was continued orally after this, being given in 1 or 2 Gm. doses, depending on the blood level. On May 21, the urine was normal with a blood sulfadiazine level of 8 mg. per hundred cubic centimeters, but the following day there were large numbers of crystals. Painless hematuria developed on May 23, with a blood level of 10 mg. per hundred cubic centimeters after 45.5 Gm. of the drug had been given. There was moderate renal tenderness but no abdominal tenderness or renal colic. The urinary output and specific gravity remained unchanged in spite of innumerable red blood cells and crystals. The renal tenderness, hematuria and crystalluria cleared in forty-eight hours.

COMMENT

The tabulation of blood levels, dosages and duration of therapy prior to the onset of hematuria (table 2) emphasizes the inconsistency of these findings and does not render credence to their indictment as causative factors.

The average twenty-four hour intake prior to onset of hematuria certainly seems to be adequate. The average daily output for twenty-four hours is obviously low in comparison with the intake, which can be explained by the torrid climate. In a review of several cases in which sulfadiazine was given in the cooler months, it was found that the urinary output was much higher in proportion to the fluid intake than in the 38 cases in which sulfadiazine was given during the past four hot months. The average output did not equal the minimal of 1,500 cc. recommended by Keitzer and Campbell,[6] which seems to be the only constant finding prior to the onset of hematuria in these cases. However, this cannot be considered the only causative factor, because cases of renal irritation [8] have been reported in which the urinary output exceeded 1,500 cc.

In some cases there is a gradual or sudden blood concentration of the drug which remains up regardless of diminution of the dose. This may be considered an indication for a rest period. Two of our patients, 5 and 6, had high blood levels on a dose of 2 Gm. per twenty-four hours.

Abdominal and renal pain occurred in most of our cases and was considered an indication for discontinuing the drug. Renal tenderness was a constant finding prior to onset in all of our cases. It was known to be present in 2 cases six hours before hematuria.

From our experience, the appearance of even a few red blood cells in the urine is a sign of impending trouble. Patient 2 was given a rest with disappearance of the hematuria only to have a recurrence with severe oliguria after an additional 3 Gm. Crystalluria was present in 4 cases before and during hematuria. Patient 4 had large orange-yellow crystals in his urethral meatus prior to onset of hematuria and renal colic. Crystalluria was present in case 4 eighty-four hours after administration of the last dose of the drug. It is difficult to explain the absence of crystalluria in 3 of these cases. It is our belief, in agreement with the pathologic report of Hellwig and Reed [5] and the cystoscopic findings of Keitzer and Campbell,[6] that there are two types of renal lesions, namely toxic effects on the tubular epithelium similar to those seen in mercury poisoning and mechanical blockage of urinary passages. Case 5 was probably due to toxicity, as there was a diminution of urinary output and an elevated nonprotein nitrogen for several days after the hematuria had cleared.

The specific gravity of the urine in our cases varied from 1.012 to 1.030 and in most instances ran from 1.016 to 1.022. The reaction of the urine was acid in all cases prior to hematuria. Schwartz, Flippin, Reinhold and Domm [9] found fewer crystals in patients taking sodium bicarbonate.

TABLE 2.—*Blood Levels, Dosages and Duration of Therapy Prior to Onset of Hematuria* *

Case	Blood Level Before Onset	Blood Level at Onset	Amount of Drug, Gm.	Number of Days Drug Was Given	Average Daily Intake of Fluids Before Onset	Fluid Intake on Day of Onset	Fluid Intake on Day After Onset	Average Daily Urinary Output Before Onset	Output Day of Onset	Output Day After Onset	Crystals in Urine Before Onset	Crystals in Urine During Hematuria	Cylindruria	Renal Pain	Abdominal Pain
1	10	10	5	1	4,350	4,350	5,850	1,100	200	700	0	0	0	+	+
2	7	...	12	4	3,000	2,500	4,350	900	75	400	+	+	0	+	+
3	3.3	5.6	35	4	4,350	4,300	5,350	1,400	290	540	0	0	0	?	+
4	8.5	6.4	72	11	4,600	5,550	5,900	1,200	120	450	+	+	0	+	+
5	...	9	6	2	3,000	4,660	5,645	1,200	625	1,000	0	0	+	+	+
6	10	...	40	7	3,810	4,600	5,050	1,180	1,300	1,600	+	+	0	+	0
7	8	10	45.5	5	3,853	5,350	4,750	1,200	2,600	2,625	+	+	0	0	0

* In all cases the urine before onset of hematuria was normal. Renal tenderness was present in all cases.

The cases all responded to conservative therapy, although cases 2 and 4 were being prepared for cystoscopy before satisfactory results were obtained. Forcing of fluids—especially moderate amounts of distilled water intravenously—large doses of alkalis, heat to the back and abdomen and sedation are the essentials of our treatment.

CONCLUSIONS

1. Seven of 38 patients given sulfadiazine during April, May, June and July 1942 had renal complications.

2. The amount of the drug, the blood level, the duration of therapy, the fluid intake and the urinary output are not the only factors involved in renal complications from sulfadiazine therapy.

3. The urinary output was relatively low in comparison with the fluid intake in our cases. This is one of the most constant findings in these 7 cases.

4. Renal tenderness was present in all 7 cases and may prove a valuable warning sign.

5. The finding of even a few red blood cells, with or without crystals, in the urine is an indication that the drug should be withdrawn.

6. There are probably two types of renal damage, one due to mechanical blockage and the other similar to mercury bichloride poisoning.

8. Schulte, J. W.; Shidler, F. P., and Neibauer, J. J.: Acute Urinary Suppression Following Sulfadiazine Therapy, J. A. M. A. **119:** 411-413 (May 30) 1942. Keitzer and Campbell.[6]

9. Schwartz, Leon; Flippin, H. F.; Reinhold, J. G., and Domm, A. H.: The Effect of Alkali on Crystalluria and Sulfathiazole and Sulfadiazine, J. A. M. A. **117:** 514-515 (Aug. 16) 1941.

7. Most cases of renal complications from sulfadiazine therapy will respond to conservative measures if instituted early.

8. The motive behind these comments is not an effort to decry the use of this valuable therapeutic agent but to emphasize the assiduous vigilance that is necessary to assure the safety of its use, particularly in the torrid climates and during the hot summer months in the temperate zone.

COMPLETE ANURIA CAUSED BY SULFADIAZINE

ALEXANDER L. LOURIA, M.D.
AND
CHARLES SOLOMON, M.D.
BROOKLYN

Much has been written and said about the relative nontoxicity of sulfadiazine and the infrequency of its untoward effects, particularly with respect to renal complications. Indeed, very few cases of renal involvement have been reported. Two facts may account for this rareness, as pointed out by Feinstone, Williams, Wolff, Huntington and Crossley:[1] first, that the solubility of acetylsulfadiazine in the urine is much higher than that of the acetyl derivatives of sulfapyridine and sulfathiazole and, second, that sulfadiazine is not conjugated to the same extent as is sulfapyridine.

Finland, Strauss and Peterson[2] in their observations on a series of 446 patients treated with the drug noted 1 case presenting ureteral colic and gross hematuria which occurred on the seventeenth day of treatment with sulfadiazine. The blood concentration at that time was 19.8 mg. per hundred cubic centimeters. The anuria that developed was relieved by catheterization and pelvic lavage. The first urine voided after catheterization contained 271 mg. of sulfadiazine per hundred cubic centimeters, of which 150 mg. was of the acetyl derivative. They also reported 2 cases that showed microscopic hematuria and 5 cases presenting elevated blood nonprotein nitrogen ranging from 15 to 26 mg. per hundred cubic centimeters. In 35 of their cases crystals were found in the urine; the crystals had the appearance of sheaves of wheat and resembled the crystals of acetylsulfathiazole.

Thompson, Herrell and Brown[3] observed complete renal suppression in their sixteenth patient treated with sulfadiazine after the administration of 675 grains (about 44 Gm.) of the drug over a period of seven days. It is interesting to note that during the course of sulfadiazine administration the urine was alkaline in every specimen except one.

Bradford and Shaffer[4] described the pathologic changes in the kidneys in their case of fatal sulfadiazine anuria. The patient received 24 Gm. of sulfadiazine during the first five days, then none for fifty hours, then 26.5 Gm. during the second course, making a total of 50.5 Gm. administered to the patient. Sulfadiazine was stopped on the twelfth day because the urinary output diminished to an alarming degree; the urinary output ceased for forty-eight hours preceding death.

Raines[5] claims that he had seen several patients in whom sulfadiazine obviously caused damage and in 1 instance death. In the fatal case a man aged 69 passed a blood tinged urine seventy-two hours after the beginning of sulfadiazine therapy. On the third day after admission the patient complained of pain in the lower part of the abdomen and then stopped voiding. The left ureter was catheterized and four days after the onset of anuria the right ureter was catheterized, but to no avail.

Hellwig and Reed[6] also reported a case of fatal anuria following sulfadiazine therapy, claiming that death was due to renal failure. The total amount of drug given during nine days was less than 24 Gm. Cystoscopy with irrigation of the renal pelvis and ureters, intravenous administration of fluid and alkalization were without success. The kidneys showed severe degeneration of the convoluted tubules similar to that seen in mercuric poisoning.

The 5 instances of complete anuria referred to are the only ones that have been reported up to the present time. Cases of partial urinary blockage have been noted. Wheeler and Plummer[7] used sulfadiazine and sodium sulfadiazine in a series of 218 cases. Among those receiving sulfadiazine, 2 patients complained of pain in both flanks and showed gross hematuria; another patient had gross hematuria but no pain in the flanks. Among those receiving sodium sulfadiazine, 2 patients complained of pain in one flank and showed gross hematuria; the pain was never severe and disappeared in twelve hours. The gross hematuria cleared up at the end of twenty-four hours. No permanent renal damage occurred. Urinalysis and renal function—as determined by the ability of the kidneys to concentrate and the urea clearance test—were normal within a few days of the time that the reaction occurred. Some of their patients during the course of treatment showed a slight or moderate increase in the number of red blood cells on microscopic examination of the centrifuged sediment. This hematuria was usually found in association with a considerable number of crystals of the drug in the urine. This finding, they believe, is no indication to stop the drug; when the drug was continued, no ill effect was observed.

Dingle, Thomas and Morton[8] treated 14 cases with sulfadiazine; in 2 of these pain occurred. In 1 pain over the right ureteral distribution developed on the eighth day of treatment and lasted several hours. The urine voided at this time showed from 10 to 15 red blood cells per high power field and numerous sulfadiazine crystals in the uncentrifuged specimens. In the other case pain occurred in the right flank. This pain, associated with microscopic hematuria, developed on the eighth day of treatment, but no sulfadiazine crystals were found in the urine. The urine in both cases cleared rapidly after cessation of chemotherapy.

Further evidence of the rarity of anuria in patients treated with sulfadiazine is attested by Dowling, Hart-

From the Medical Service of Dr. Alexander L. Louria, Jewish Hospital of Brooklyn.

1. Feinstone, W. H.; Williams, R. D.; Wolff, R. T.; Huntington, Evelyn, and Crossley, M. L.: The Toxicity, Absorption and Chemotherapeutic Activity of 2-Sulfanilamidopyrimidine (Sulfadiazine), Bull. Johns Hopkins Hosp. **67**: 427-456 (Dec.) 1940.
2. Finland, Maxwell; Strauss, Elias, and Peterson, O. L.: Sulfadiazine: Therapeutic Evaluation and Toxic Effects on Four Hundred and Forty-Six Patients, J. A. M. A. **116**: 2641-2647 (June 14) 1941.
3. Thompson, G. J.; Herrell, W. E., and Brown, A. E.: Anuria After Sulfadiazine Therapy, Proc. Staff Meet., Mayo Clin. **16**: 609-612 (Sept. 24) 1941.
4. Bradford, H. A., and Shaffer, J. H.: Renal Changes in a Case of Sulfadiazine Anuria, J. A. M. A. **119**: 316-318 (May 23) 1942.
5. Raines, S. L.: Ureteral Obstruction Following the Use of Sulfadiazine, J. A. M. A. **119**: 496-497 (June 6) 1942.
6. Hellwig, C. A., and Reed, H. L.: Fatal Anuria Following Sulfadiazine Therapy, J. A. M. A. **119**: 561-563 (June 13) 1942.
7. Wheeler, Charles, and Plummer, Norman: Sulfadiazine and Sodium Sulfadiazine: A Comparison of Certain of Their Clinical and Pharmacologic Values, Ann. Int. Med. **16**: 269-285 (Feb.) 1942.
8. Dingle, J. H.: Thomas, Lewis, and Morton, A. R. Treatment of Meningococcic Meningitis and Meningococcemia with Sulfadiazine, J. A. M. A. **116**: 2666-2668 (June 14) 1941.

man, Sugar and Feldman,[9] who found no instance of renal lithiasis in a series of 137 patients treated with the drug. Sulfadiazine crystals were found less frequently in the urine than sulfapyridine or sulfathiazole crystals during administration of the latter drugs in similar doses. The blood urea nitrogen of 2 patients was increased but remained below 50 mg. per hundred cubic centimeters. It was difficult to determine whether this mild azotemia developed as a result of the disease or of the administration of the sulfadiazine. Styron, Bromley and Root[10] found no case of gross hematuria in their series; 2 cases in which there was increased nonprotein nitrogen they attributed to glomerulonephritis. They used sulfadiazine and sulfathiazole on 200 nondiabetic and 100 diabetic patients. Their report does not make clear which patients received sulfadiazine and which sulfathiazole. Among 100 patients treated with sulfadiazine by Flippin, Rose, Schwartz and Domm,[11] microscopic hematuria was observed in 4, no patient had gross hematuria and 29 per cent had urinary crystals. Reinhold, Flippin, Schwartz and Domm[12] found no renal complications among 24 patients treated with sulfadiazine.

In answer to a question regarding the significance of the presence of crystals of the drug in the urine, the answer was as follows:[13] "The appearance of crystals in the urine of a patient who is receiving sulfapyridine, sulfathiazole or sulfadiazine is not of special significance unless the crystals are accompanied by microscopic or macroscopic hematuria. . . . While it is not a good practice routinely to administer sodium bicarbonate with sulfapyridine, sulfathiazole or sulfadiazine, it would appear from the work of Schwartz and his associates (THE JOURNAL, Aug. 16, 1941, p. 514) that under certain conditions the maintenance of high alkalinity of the urine will decrease the amount of crystals in it."

The following case is the sixth known recorded case of complete anuria resulting from sulfadiazine therapy:

REPORT OF CASE

B. B., a white woman aged 25, unmarried, was in the Jewish Hospital of Brooklyn from May to July 1940, at which time a diagnosis of rheumatic heart disease was made. Following discharge she indulged in ordinary activity and was fairly comfortable until three weeks prior to readmission to the hospital. During this period she complained of sweats and feverish sensations. Her temperature was found to be 102 F. and she was put to bed and given salicylates. However, the temperature remained elevated during these three weeks and she was brought into the hospital on March 18, 1942. Physical examination at this time revealed that the patient was orthopneic, pale, cyanotic and acutely ill. Her temperature was 102.4 F., the pulse 112 a minute and respirations were 20 a minute. Several small petechiae were found in the conjunctivas of both lower eyelids. The eyegrounds showed nothing abnormal. Several petechiae were seen under the breasts. The heart was slightly enlarged to the left and double mitral and aortic murmurs were audible on auscultation. The spleen and liver were not palpable and physical examination was otherwise negative.

Laboratory examination gave the following results: The blood count, March 18, showed evidence of a mild secondary anemia with hemoglobin of 74 per cent, red blood cells 3,600,000 and white blood cells 8,800, with 74 per cent polymorphonuclear leukocytes. At times the hemoglobin dropped to as low as 50 per cent, and a few transfusions were given. On March 28 examination of the urine showed a specific gravity of 1.018, tests for albumin, sugar and acetone were negative and an occasional red blood cell was present in the sediment, which also contained some acetylsulfadiazine crystals. The Kline test was negative; a blood culture taken on admission of the patient to the hospital yielded 56 colonies of Streptococcus viridans per plate.

Therapy consisted of the administration of sulfapyridine 2 Gm. (30 grains) followed by 1 Gm. (15 grains) every four hours. This had to be stopped after twenty-four hours because of profuse vomiting. Sulfathiazole in the same dosage was started two days later and was given for two days. This drug also had to be discontinued because of vomiting. On March 26, the eighth day of hospitalization, sulfadiazine therapy was begun; 2 Gm. was given followed by the same amount in two hours and then 1 Gm. every four hours. After five days of apparent tolerance to the drug, during which time there was no effect on the fever, she voided only 150 cc. of urine. The drug was stopped immediately but complete anuria occurred all through the following day. The blood concentration on the day the drug was discontinued was 22.4 mg. total sulfadiazine per hundred cubic centimeters. Cystoscopy was performed the next day, a 21 F. cystoscope being passed easily. The bladder contained 2 cc. of cloudy urine. There was slight congestion throughout the bladder, more noticeable in the region of the left ureteral orifice, which was also edematous. A crystalline deposit was present in the right ureteral orifice. A small concretion about 2 to 3 mm. in diameter was found on the floor of the bladder. A no. 6 F. catheter could not be passed into either ureter, but a no. 5 F. was introduced for a distance of 28 cm. into the right renal pelvis. No drainage occurred. After irrigation with several cubic centimeters of warm saline solution a moderately active flow of slightly sanguineous urine appeared. Attempted catheterization on the left side was unsuccessful until a no. 5 olive tipped catheter was used, which permitted an efflux of crystals as the ureter was entered. The catheter was then advanced 28 cm. to the pelvis of the kidney. No return was obtained until an irrigation with warm saline solution was done. The flow was active and the urine clear. The two catheters were left in situ for seventy hours, during which time the urine dropped freely. After removal of the catheters the patient's bladder had to be catheterized once. Thereafter she voided freely. The day after the drug was discontinued the blood concentration was 8.9 mg. per hundred cubic centimeters and declined steadily to 3 mg. per hundred cubic centimeters on the fifth day. Two days after the sulfadiazine was started crystals were found in the urine, which, however, showed no other abnormalities. No hematuria, hemolysis or other untoward effect was noted. After sixteen days had passed without chemotherapy, sulfadiazine was again started on April 17. For the first two days 5 Gm. (75 grains) was given in twenty-four hours. The dose was then increased to 6 Gm. (90 grains) daily until May 11, when the drug was withheld because nausea and vomiting appeared. The urinary output remained adequate; examination of the blood on May 11 showed hemoglobin 53 per cent, red blood cells 3,200,000 and white blood cells 10,200, with polymorphonuclear leukocytes 75 per cent. Concentrations of the drug in the blood (in milligrams per hundred cubic centimeters) on various determinations from April until May 11 were 9.8 total, 9.3 free; 7.4 total, 7.2 free; 6.7 total, 6.3 free; 12.5 total, 11.9 free; 5.9 total and 7.7 total. The patient also received seven intravenous injections of typhoid vaccine in doses ranging from 1 to 9 minims (0.06 to 0.55 cc.). A similar response occurred with each injection; the temperature rose to and was maintained at 106 F. for several hours. Her urinary output was adequate and there was no evidence of hematuria, either microscopic or gross.

9. Dowling, H. F.; Hartman, C. R.; Sugar, S. J., and Feldman, H. A.: The Treatment of Pneumococcic Pneumonia with Sulfadiazine, J. A. M. A. **117**: 824-826 (Sept. 6) 1941.

10. Styron, C. W.; Bromley, Harry, and Root, H. F.: The Use of Sulfadiazine and Sulfathiazole in Diabetes Mellitus, J. A. M. A. **118**: 1423-1427 (April 25) 1942.

11. Flippin, H. F.; Rose, S. B.; Schwartz, Leon, and Domm, A. H.: Sulfadiazine and Sulfathiazole in the Treatment of Pneumococcic Pneumonia, Am. J. M. Sc. **201**: 585-592 (April) 1941.

12. Reinhold, J. G.; Flippin, H. F.; Schwartz, Leon, and Domm, A. H.: Am. J. M. Sc. **201**: 106-115 (Jan.) 1941.

13. Sulfanilamide Derivatives and Urinary Crystals, Queries and Minor Notes, J. A. M. A. **117**: 2296 (Dec. 27) 1941.

CONCLUSIONS

Review of the literature and our own experience seem to warrant the following conclusions:

1. If the urine output is good, the presence of crystals in the voided urine output should not be considered an indication for discontinuing the drug.

2. The appearance of gross blood in the urine at any time during administration of the drug should be an indication for discontinuing the drug.

3. Hematuria clears up promptly after the drug has been stopped.

4. No permanent renal damage has been observed in the cases in which recovery has been reported.

5. Obstruction of the urinary tract resulting from the deposition of crystals of the drug may be relieved promptly by ureteral catheterization and pelvic lavage.

6. Whether alkalization of the urine will deter crystal deposition in the urinary tract is still a moot point.

99 Lafayette Avenue—910 Park Place.

LESIONS OF THE RIGHT COLON INVOLVING RIGHT COLECTOMY

FRANK H. LAHEY, M.D.
AND
ERIC SANDERSON, M.D.
Fellow in Surgery, the Lahey Clinic
BOSTON

Out of an experience of 170 resections of the right colon and terminal ileum, of which 112 were for carcinoma, 53 for regional ileitis, 4 for tuberculosis and 1 for endometriosis, have come some deductions and conclusions which to us have been of value. These will largely relate themselves to two conditions, that of carcinoma of the right colon and that of regional ileitis, since the experience with tuberculosis in this group is too limited from which to draw conclusions, and the single case requiring resection of the right colon for endometriosis was solely the mechanical problem of angulation and obstruction as the result of inclusion of the terminal ileum with the right colon in the endometrial implants.

CARCINOMA OF RIGHT COLON

In the diagnosis of carcinoma of the right colon we, as has every one else, have been impressed with the fact that severe grades of secondary anemia are associated with malignant lesions at this level more than at any other level. Lest any one think, however, that this anemia is consistently present with carcinoma of the right colon, an investigation of our records shows that in not over 70 per cent of the cases have there been really severe grades of secondary anemia. It is, however, so characteristic of this lesion that, when we see a patient with a pallor and lemon yellow color so often associated with these severe grades of secondary anemia, who in his history even before being examined complains of right abdominal discomfort, we immediately become suspicious of a malignant lesion of the right colon. In addition to this, we would urge that the grades of secondary anemia which can be present with malignant lesions of the right colon with the lesion still removable and in many cases not recurring over long periods of time do not exist in lesions of the left colon, rectosigmoid and rectum in the absence of metastatic extension which marks the lesion as inoperable. One can, therefore, assume the possibility, more in a malignant condition of the right colon than in the left, that even in these advanced grades of secondary anemia with lesions of the right colon, the lesion may still be removable at a stage when nonrecurrence is at least a probability.

No one has ever as yet adequately explained why a relatively small lesion of the ascending colon can produce such severe grades of secondary anemia. Suggestions such as that made by Alvarez of the anemia being related to the diameter of the ulcerating lesion, and so the amount of absorption from it, the suggestions by others as to the constant leakage of blood and the suspicion by one of us (F. H. L.) of the relationship of the absorption of toxins and organisms in the liquid mediums of the right colon are of interest but by no means adequately explain the striking association of these high grades of secondary anemia with this particular lesion.

It is unfortunate that the diagnosis of carcinoma of the ascending colon is unassociated with early and distinctive symptoms. Since it is our conviction as the result of our experience with malignancy in polyps that a great many of the malignant lesions of the colon and rectum originate in adenomas or polyps of those structures, it is obvious that they start at one point and so do not produce, particularly here where the contents of the bowel are liquid, obstructive symptoms until they have been present for a considerable period of time. It has been roughly estimated that, if a malignant lesion starts at one point on the bowel, it requires from six months to a year, allowing that range for variation in rate of growth, to encircle completely the bowel and produce obstructive symptoms. Except when a malignant lesion of the ascending colon happens by chance to occur at the ileocecal valve, the liquid contents of the bowel at this point plus the large diameter of the cecum, ascending colon, hepatic flexure and right transverse colon are such that early obstructive symptoms are rare. It is unfortunate also that the leakage of blood from such a lesion mixes itself intimately with the liquid feces here and so, unless of considerable quantity, does not diagnostically reveal itself early in the stools as does blood from the left colon, sigmoid, rectosigmoid and rectum.

It is likewise unfortunate that the mere presence of an ulcerating lesion in the right colon, until fairly well advanced and involving other structures, causes so few symptoms and such little inconvenience. It is further unhappily true from the aspect of possible early diagnosis that such is the caliber and size of the cecum and ascending colon that lesions, particularly on the posterior wall, can fail to demonstrate themselves in the barium filled cecum and can be easily overlooked by the roentgenologist.

As to the histories of carcinoma of the right colon, one can only say that the same features are to be looked for in malignant lesions at this level as at other levels in the colon—the presence of blood, gross or microscopic, mucus, change in bowel habits, anemia, loss of weight and vague abdominal symptoms.

It is additionally unfortunate that malignant lesions of the ascending colon, cecum and hepatic flexure tend to be less palpable through the abdominal wall than

From the Department of Surgery, the Lahey Clinic.
Read before the Section on Surgery, General and Abdominal, at the Ninety-Third Annual Session of the American Medical Association, Atlantic City, N. J., June 10, 1942.

do lesions of the sigmoid, rectosigmoid and rectum. It has been our experience, dealing now with an operative experience amounting to over 1,300 lesions of the large bowel and rectum that have been operated on, that in carcinomas of the sigmoid, rectosigmoid or rectum more than half of the lesions are palpable either through the rectum or through the abdomen, while lesions of the right colon are as a rule not palpable.

While the difficulties of early diagnosis as the result of the foregoing facts are true, rarely will carcinoma of the ascending colon be present in the absence of the demonstration of occult blood in the stool, and rarely will it be impossible, by careful and repeated fluoroscopic examinations and lateral roentgenograms of the colon showing posterior wall lesions, to diagnose carcinomas at this level.

Nothing that we have learned in this experience has been more important than that one should appreciate the fact that in the past many of these cases have been regarded as inoperable and the wound has been closed when the lesions involved other structures only in the form of contact extension and not true metastases, producing inoperability.

Carcinomas of the ascending colon are particularly prone to involve the ileum or jejunum by contact metastases and we have repeatedly found it possible in cases with such contact metastases to do multiple level resections successfully, resecting the ascending colon and a segment of the jejunum or ileum. In several such cases the lymph glands of both structures have been found uninvolved in the malignant growth and there has been nonrecurrence over several years. Since some of these cases have been regarded as inoperable elsewhere and the wound closed because of these contact metastases, before being sent to us, we are led to express again what we have repeatedly preached and written, that is, that one must be extremely careful in deciding whether or not a malignant lesion of the large bowel is inoperable, as to whether the extension is that of a contact character or of metastases into adjacent lymph nodes or involving such structures as are nonremovable.

Lesions of the right colon are particularly apt to involve the lateral peritoneum and lateral abdominal wall by contact extension. We have a number of times removed such lesions together with the lateral peritoneum to which it was adherent and even the local musculature of the abdominal wall, leaving the wall covered only by skin and subcutaneous fat. It has been necessary in some of these cases with large local lesions, particularly in the malignant growths around the hepatic flexure, to do complete dissections of the kidney pelvis with its entering ureter and vessels or, as occasionally has been the case, to remove the kidney with the lesion to which it was adherent. It has been occasionally necessary likewise to do cholecystectomy because of the involvement in the exudate or by the growth of the gallbladder in the malignant mass. Occasionally carcinomas of the ascending colon or hepatic flexure will attach themselves to the under surface of the liver by direct contact. It is not to be assumed likewise that lesions here are inoperable, since by means of the cutting current it is possible to excise that section of the liver only locally involved in the malignant lesion by direct contact, to suture its bed or to control the oozing satisfactorily by packs, and to accomplish radical removal of that section of the colon with its contained growth. It is obvious from these cases that this group of cases does not represent a selected group but rather one in which range of operability has been extended to its maximum.

In the operative removals of carcinomas of the right colon by the modified Mikulicz operation which we have now employed over a number of years and which one of us has described (F. H. L.), it is important to state, because of the confusion which exists in many minds about the old and original type of Mikulicz operation and the modern modification, that the procedure in no way differs in the extent of its radicalness, either in amount of colon removed or in the area of adjacent mesentery and mesenteric glands included in the removal of the colon. It differs from primary removal and primary anastomosis only in the method of restoring the fecal stream and not in radicalness of extent. Any discussion, therefore, of the extent of removability, the extent of colon or mesentery removed applies equally to any medical method of removing this segment of large bowel.

As a result of our experience with this procedure, we have become convinced that it is important after the right colon has been mobilized by incising the lateral leaf of peritoneum outside the colon and turned inward,

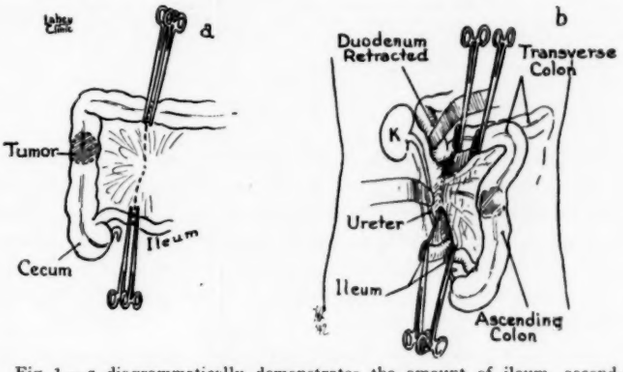


Fig 1.—*a* diagrammatically demonstrates the amount of ileum, ascending colon and transverse colon to be resected, the dotted lines indicating the radicalness of the extent of removal of attached mesentery and glands. In *b* the lateral parietal peritoneum has been incised, the colon turned inward, the ileum and transverse colon divided between clamps and the mesentery severed up to its root. It is to be noted that the duodenum has been separated from the root of the mesentery and held upward and that the ureter has been retracted outward, thus permitting the extensive removal of mesenteric root to the midline.

to find at once behind the rotated colon either the ovarian vessels in the female or the spermatic vessels in the male and then the structure from this toward the middle line, the ureter. The ureter is freed from its attachment to the posterior parietal peritoneum covering the inner side of the mesentery of the ileum and colon as it passes over the brim of the pelvis, and followed upward to its position behind the duodenum where it enters the kidney pelvis and is clearly visualized throughout its extent. It is important, we believe, to mobilize the ureter throughout its entire extent so that a large leaf of mesentery running from the terminal ileum up to the apex of the V of right mesentery which is to be removed can be freed. It is next important, we believe, to dissect carefully the retrocolic duodenum well off from the root of the mesentery, since only by completely freeing the hepatic flexure, turning it inward and completely freeing the retroperitoneal duodenum will it be possible to extend the removal of the mesentery of the right colon sufficiently close to its root in the midline to remove adequately all of its contained nodes (fig. 1 *b*).

We have found it desirable in resections either of the terminal ileum or of the right colon to include in the resection all of the ascending colon, the hepatic flexure and the right portion of the transverse colon. This is desirable because it permits wider resection of the mesentery of the right colon and hepatic flexure (fig. 1 *a*) with its contained glands and because the

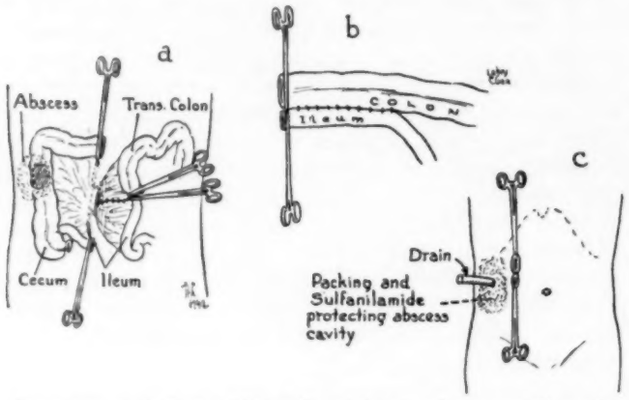


Fig. 2.—*a*, method of dealing with carcinoma of the ascending colon with abscess. Note that the transverse colon has been severed between clamps, as has the ileum, but that the abscess is not opened and the ascending colon removed until the mesenteric root of the Mikulicz resection has been sutured, thus segregating the general peritoneal cavity. With gauze packs about the bowel, the segregated section of colon with the abscess can be dealt with, the abscess sucked out and the carcinoma-containing colon removed. *b*, long approximation of ileum to transverse colon in order to make a long spur to cut. In *c* the segregated section of bowel containing the carcinoma with abscess shown in *a* has been removed, the abscess cavity dried out, filled with sulfanilamide and packed with gauze, and the end of the drain is shown emerging through a counter incision.

ileum can be applied more satisfactorily to the transverse colon, placed as it is in a straight line, than to the angulated, often reduplicated, hepatic flexure. This makes a very much better and accurately opposed Mikulicz double barreled tube than does the application of the ileum either to the ascending colon or to the hepatic flexure.

We have done so many Mikulicz resections of the right colon now that we have learned how to overcome most of the difficulties that may be associated with this procedure. One of the very important things is to be sure that a much longer loop of ileum is tacked, as shown in figure 2 *b*, to the transverse colon than one thinks is necessary. It is of no disadvantage whatever to tack too much ileum to the transverse colon, but it is of considerable disadvantage to tack too little. Not infrequently in tacking the ileum to the transverse colon, when radical removals of the right half of the transverse colon have been done it is found that an insufficient amount of transverse colon can be pulled up into the wound. This can always be easily remedied by freeing the gastrocolic omentum to the left transverse colon, by liberating the attachment of the splenic flexure, lowering it and making available longer loops of transverse colon to be pulled into the wound. One can, if necessary, so liberate the splenic flexure that the descending colon can be brought into a right rectus incision, with the establishment of a double barreled loop by applying the terminal ileum to its side.

In dealing with resections of the ascending colon one will occasionally encounter a carcinoma which has perforated and is surrounded by an abscess. It is possible with a modification of the Mikulicz procedure, shown in figure 2 *a*, to deal with this quite safely and satisfactorily. By this plan the transverse colon is cut between clamps, the ileum is cut between clamps and the mesentery is severed but the adherent ascending colon with the carcinoma and abscess about it is not removed. The root of the mesentery as shown in figure 2 *a* is carefully sutured, thus excluding the small intestine and serving as a coffer dam. With gauze packs about the segregated section of ascending colon containing the carcinoma and the abscess, walling off the rest of the abdomen, the abscess can be entered, sucked out, drained, the colon removed and the abscess cavity thoroughly dried out, filled with sulfanilamide and packed with gauze. The gauze surrounded on its external portion by rubber dam can then be brought out through a counter incision as shown in figure 2 *c*, and the Mikulicz loop implanted in the wound.

One of the things one must have in mind in resections of the right colon is that the parietal peritoneum in the jejunal fossa at the region of the ligament of Treitz is often thin and that the entrance of the jejunum retroperitoneally can be high up in the mesentery of the right colon. As the colon is mobilized and its mesentery freed so that it hangs by its root in the middle line, one must be careful as the mesentery, seen from behind, is cut down to a V that the loop of jeunum, often toward the right, be not included in the clamps, and that an adequate amount of peritoneum is left adjacent to it so that a defect is thus left in the mesentery root which cannot be repaired. Should such a nonrepairable defect remain, it can permit the occurrence of a most distressing internal hernia during the postoperative recovery, through this opening. We have warned particularly against this possibility in resections of the splenic flexure, since the entrance of the jejunum through the mesenteric root tends in these lesions to be more toward the left side than the right.

In resections of the right colon it is also desirable to have a long loop of ileum attached to the transverse colon, as shown in figure 2 *b*, since it is important in order to restore the fecal stream that the spur or septum in the double barreled Mikulicz loop can be cut down for a long distance. This insures an adequate pathway for the feces to pass through the Mikulicz region.

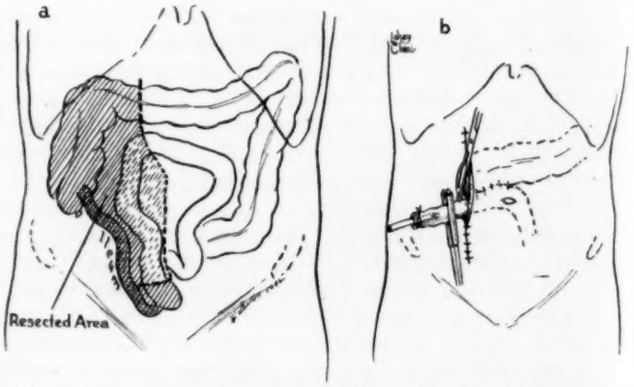


Fig. 3.—*a*, amount of ileum, ascending colon, hepatic flexure and transverse colon, shown in shaded lines, together with the wide extent of mesenteric apron with its glands, which can be removed radically either in carcinoma or in regional ileitis. *b* demonstrates the devascularized segment of ileum for decompressing the ileum and a rubber clamp placed on it, while a catheter or rubber tube is sutured in the end to be conducted to a bottle at the side of the bed for immediate decompression.

We have deliberately evolved and adhered to this modified Mikulicz type of procedure because in our hands it has given such satisfactory results. With it it is possible, by the staggering of the devascularized terminal loop of ileum, which one of us (F. H. L.)

first described and illustrated in figure 3 *b*, to insert a catheter or a Paul tube into the end of the ileum immediately at the time of operation, connect it by a rubber tube to a bottle beside the bed and accomplish immediate decompression of the small intestine. There is nothing more important, we believe, in any intestinal

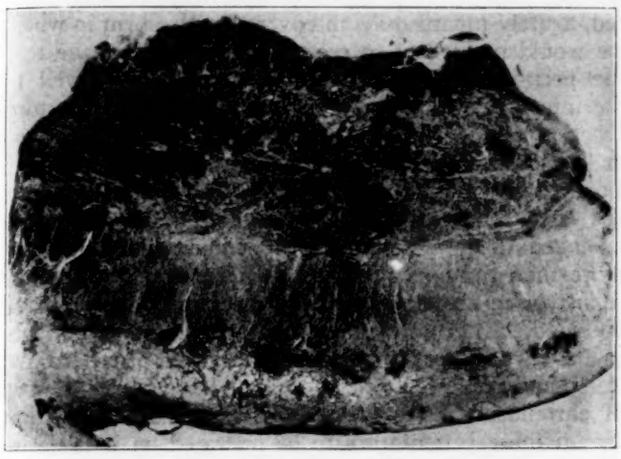


Fig. 4.—Involvement in regional ileitis of all the walls of the ileum.

resection than the ability to decompress at the time the resection is done. Patients sometimes die following colon resections not because of the resection itself necessarily but as the result of the temporary obstruction which goes with it and the effect of this on their general condition and the suture line. It is to be noted in figure 3 *b* that the loop of ileum into which the tube is inserted has been devascularized and will slough off even with the abdominal wall, thus resulting in a double barreled intestinal loop, the ends of which are at the same level on the abdominal wall.

The clamp on the spur of the Mikulicz loop is applied on the sixth to the seventh day, and it has been our experience that it is better to apply the clamp two or three times than to attempt to cut the septum of the spur with one long clamp. We fear the danger with the long clamp of including too much in the bite of the clamp and we believe that the hazard of perforation with such a long clamp is greater than with two or three small bites.

Of all the patients with carcinomas of the large intestine having resections in this clinic followed over five years, 43 per cent of those with carcinoma of the rectum and 57 per cent of those with carcinoma of the colon on whom the radical operation has been done have remained alive and well over that period of time without recurrence. The nonrecurrence rate in the carcinomas of the right colon have averaged at the same rate as have the carcinomas of the colon at other levels.

REGIONAL ILEITIS

The other condition which we wish to discuss is that of regional ileitis. There is little to be said concerning the cause of regional ileitis except that any lesion of obvious inflammatory character, which on microscopic examination demonstrates itself as inflammatory in nature by the round cell infiltration which is associated with it, and which involves, as does regional ileitis, all the coats of the bowel (fig. 4) must be assumed to be inflammatory even though the infecting agent cannot be demonstrated. It seems reasonable, therefore, to conclude that regional or terminal ileitis is an inflammatory reaction to an agent not microscopically demonstrable. In all of these reported cases the lesion has been limited to the terminal ileum. It has been quite consistent in character, in symptoms and in appearance, varying only for practical purposes as relates to the complications associated with it, largely the result of perforations or mechanical obstructions, perforations which have produced local abscesses or sinuses by perforating into adjacent viscera.

The diagnosis has been based on the history of right lower quadrant pain, not infrequently diarrhea, and intermittent obstruction associated with it, chronicity of the history, weight loss and not infrequently a previous operation such as appendectomy, without relief. Palpable masses have occasionally been present and external and internal fistulas have been demonstrable in 25 per cent of the cases, so that whenever a patient comes to us with a history of having been operated on for appendicitis, followed by a chronic fistula, particularly when associated with intermittent obstructive symptoms, we are extremely suspicious of regional or terminal ileitis.

It has been possible in a large percentage of the cases to demonstrate the rigid ileum, as shown in figure 5, and in many others the typical "string sign" described by Dr. Burrill Crohn, as illustrated in figure 6.

The discussion of the treatment of regional ileitis is concerned with (1) whether it is to be treated expectantly and if so what can be done, (2) whether it is to be treated surgically in a conservative manner by lateral anastomoses as has been advocated by some, or (3) whether it is to be treated by a radical removal of the involved ileum and adjacent colon as we have employed, and what the results have been.

We know of no medical measures which can be applied to this disease that offer any prospect of limiting its extension. Not only is this true, but while one applies medical measures it is possible for the process

Fig. 5.—Gross specimen of regional ileitis removed, showing extension to the ileocecal valve, the infiltration of all the coats and stricturing near the ileocecal valve.

to involve adjacent structures, such as the sigmoid, to perforate into these adjacent structures and form sinuses into the sigmoid, bladder, vagina and externally as had already undeservedly occurred in many of these cases when sent to us for operation.

We have deliberately applied radical resection of the ileum, ascending colon and hepatic flexure to regional

ileitis because we believe that by this method we can most effectively remove the infected segment of bowel and with it the infected glands in its attached mesentery. We have been impressed with the desirability of continuing this radical plan of treatment in this lesion because there has been but one death in the 53 resections and that in the presence of an abscess and perforation, but particularly because in spite of such radical resections, there have been but 2 cases in which the disease has recurred in the remaining ileum. These recurrences took place in the beginning of our experience when we did removals of the ileum but with limited resections of the ascending colon, thus leaving infected glands in the remaining areas of attached mesentery. Since we have done more of these operations we have realized that the infecting process not infrequently extends over onto the ascending colon for varying distances, so that it is desirable to resect not only

Fig. 6.—Typical "string sign" of Crohn in regional ileitis. Note also in this the extension of the process onto the colon.

a long segment of ileum but also all of the ascending colon and hepatic flexure together with its mesentery. Since these wider resections have been done there have been no recurrences.

As is shown in figure 3 *a*, one of the advantages of such an extensive resection of the terminal ileum and entire right colon with the right section of the transverse colon is the fact that with such an extensive resection a wide area of mesentery with its infected glands can be removed in this region. We have been impressed with the possibility that, if limited sections of ileum and colon are removed, one often leaves behind large, obviously infected and inflamed mesenteric glands probably harboring whatever the infecting agent is, and at least promoting the possibility of further infection of the remaining segments of bowel.

The same plan of resection of the right colon has been consistently applied in regional ileitis as has been applied in carcinoma of the right colon, that is, the modified Mikulicz plan of resection with secondary closure and with the devascularized segment of ileum serving as a spigot for immediate decompression. This operation lends itself just as satisfactorily to all resections of the right colon as presented in this group of cases as it does to carcinoma of the right colon.

As a result of this experience, we have set up for ourselves certain rules to apply in cases of regional ileitis. One is that there is definitely a stage with red, acutely inflamed ileum covered with fibrin in which we would prefer not to resect. It is at this stage that the peritoneum has not yet vaccinated itself well to the infection. It is at this stage that the inflammatory reaction within the mesenteric glands is acute and so makes them more difficult and less desirable to handle. Fortunately, it is at this stage so often that the patient has been operated on before coming to us under the mistaken diagnosis of acute appendicitis and nothing more than the appendix has been removed. This has been true in 25 per cent of the cases in which we have operated. This is fortunate, as it permits the patients to have vaccinated their peritoneal cavity well to the lesion and the lesion to have become less acute and more of chronic character. We have assumed the position that if these patients are to be operated on it is desirable when possible, as has usually proved to be the case, to remove radically all the segment of infected bowel together with this adjacent mesentery and infected mesentery glands, as shown in figure 1 *a*. We have realized the possibility of other segments of bowel being involved and have always insisted that the other levels of small intestine be investigated to make sure that other segmentally involved areas do not exist.

In any discussion of resections of the right colon by the employment of the plan of modified Mikulicz resection, it seems wise to discuss briefly some of the points particularly related to the successful second stage closure of the Mikulicz enterostomy after the spur has been cut.

We were interested in the beginning of our experience with this operation to have these patients back for closure of their temporary external ileocolostomy as early as possible, since they were never happy as long as even part of their feces was discharged through the temporary external ileocolostomy. In addition to this, many of those patients have had varying degrees of skin irritation about their temporary external ileocolostomies. We have become more and more convinced with the widening experience with the secondary closure of Mikulicz external ileocolostomies that it is wise not to attempt to close them earlier than two months after operation. If one attempts closure before this time the wound is often still edematous, there are small fluid pockets of undigested catgut in it and the peritoneum has not become firmly fixed to the neck of the intestinal spur. We have therefore taken the position that all these patients shall wait for two months before returning for their second stage closure. At the beginning of our experience we were often hesitant to do these secondary closures when there was considerable skin irritation about the external ileocolostomy of a right colon Mikulicz resection. We have now learned that no matter how much skin reaction there is they can be closed quite safely and that, since this reaction is largely of chemical or digestive nature, as soon as the ileocolostomy is closed it will disappear and promptly heal. We have learned that there is in all probability a high degree of local immunity in the tissues and that infection of these wounds rarely takes place even when

the closure is made in the presence of this skin irritation. There have been only three mild infections in all these resections.

When a patient returns at the end of two months for the closure of his external ileocolostomy we have also learned from this experience that one must be careful to investigate how low the spur in the double barreled Mikulicz tube of bowel has been cut at the first

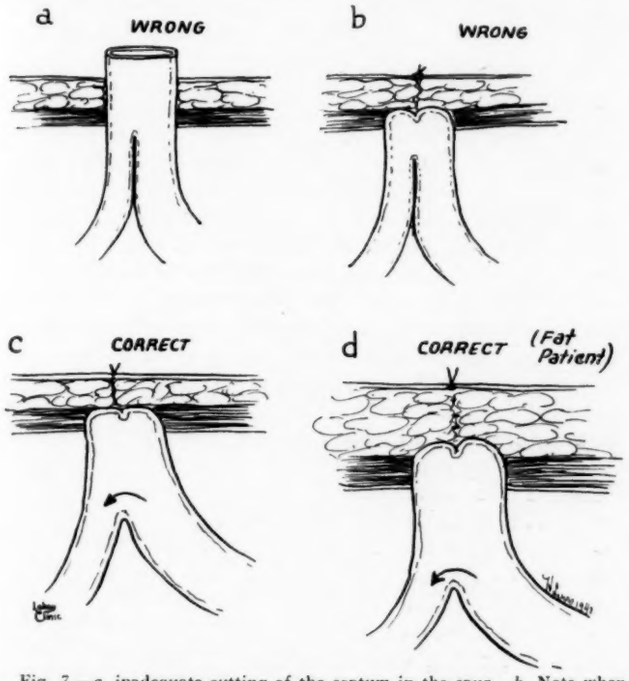


Fig. 7.—*a*, inadequate cutting of the septum in the spur. *b*, Note when the end of the Mikulicz enterostomy is closed and inverted, and the septum inadequately cut, how feces are thrown up against the closed end to threaten its reopening, and also how inadequate is the aperture for the passage of the fecal stream. At *c* the spur has been well cut down. Note the adequate aperture for the passage of feces when the end of the Mikulicz enterostomy has been closed at the second stage. Note also, as shown in *d*, that this spur has been closed beneath the level of the fascia, contrary to the closure above the level of the fascia beneath the skin and fat. *d* is similar to *c*, showing an adequate cutting of the spur with an adequate aperture for the fecal stream, but in it is to be noted in a fat patient that the end of the Mikulicz enterostomy can be closed above the layer of the fascia, being covered only by subcutaneous fat and skin.

operation. One may apply an Ochsner clamp on the spur at the first operation three or four times and cut the spur low, but as a result of the organization of the exudate in the spur, when the patient returns for the second stage the septum can frequently be still too high (fig. 7 *a* and *b*). It is therefore very desirable that no patients have their external ileocolostomy closed as the second stage of the Mikulicz procedure until the septum has been demonstrated as absent or is cut down again by the application of clamps for a sufficient depth (fig. 7 *c* and *d*). Unless this is done there will frequently be left a segment of uncut septum which, when the external Mikulicz has been closed, will throw the feces up against the closed end of bowel and threaten the establishment of a fistula (fig. 7 *b*). There are two very important things in the second stage closure of a Mikulicz operation. One is that the septum has been cut low enough, and the second is that as the tube of bowel is prepared for closure at the second operation all indurated tabs of epiploic appendices or attached mesentery be freed from the bowel. The bowel must be dissected from the skin, the attached cuff of skin must be cut away and the bowel must be so freed from subcutaneous fat and so freed of its indurated fat pads of mesentery that when it is inverted by the in, out and over stitch it will bury and invert itself as accurately as will a segment of free and unoperated on bowel within the abdominal cavity. We feel very sure that the complaints that are frequently made to us by surgeons visiting the clinic that they close the external ileocolostomy of a second stage Mikulicz operation satisfactorily but that at the end of a week or ten days it reopens are due to lack of attention to these details because of the fact that they have not completely freed the loop of bowel of all of its indurated mesentery and fat pads so that its walls can be easily inverted. It has been forced inward in spite of attached indurated pads of fat by the in, out and over stitch of catgut, and, as soon as the catgut has absorbed, the mucosa everts and a mucous lined, external fistula is again established. The principle of the successful closure of the external ileocolostomy of a second stage Mikulicz operation is involved in so freeing the external section of bowel that it can be accurately inverted without tension with three layers of sutures.

When we first began to close second stage Mikulicz operations we felt that the external tube of bowel now the common ileum and transverse colon with the spur cut had to be separated from skin, subcutaneous fat, fascia and muscle, leaving it attached only by the peritoneum. This is desirable, and it is desirable to invert the external tube of bowel so that it is below the level of fascia (fig. 7 *c*). In patients with fat abdomens, however, this has not been necessary. It has frequently been satisfactory, as shown by Dr. Cattell in this clinic, in such cases to separate the bowel down to the fascia, to bury it at the level of the fascia and then to close the skin and subcutaneous fat over it (fig. 7 *d*).

As shown in figure 8, a small strip of rubber dam is left to emerge at the upper and lower angles of the wound and withdrawn on the fifth or sixth day. In no case has there been serious infection of the wound. In a few cases temporary fistulas have resulted, but it is rare in secondary closure of these Mikulicz procedures for the wound not to heal by first intention.

There have been nineteen deaths in the entire series of carcinoma of the colon and one in the resections for regional ileitis, most of which have occurred in the complicated resections, a mortality rate of 11.7 per cent.

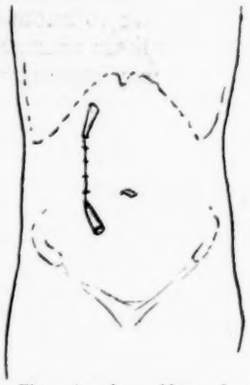


Fig. 8.—A rubber dam brought out through the upper and lower end of the wound in patients after the Mikulicz enterostomy has been closed.

In the discussion of this subject and our preference for the modified Mikulicz type of resection we do not wish to imply that it is the only type of operative procedure to be employed. We believe that every one must make his own decision concerning the type of operation he employs. We wish only to say that the employment of the modified Mikulicz type of operation for resections of the colon has given all of us a very high degree of satisfaction, that in our hands with its permitting immediate decompression, it allows us to do resections on patients with moderate degrees of obstruction in which we would otherwise do preliminary decompressions, and that with it has been eliminated largely from our minds the fear of leakage and the development of peritonitis.

RESECTION AND IMMEDIATE ASEPTIC ANASTOMOSIS FOR CARCINOMA OF THE COLON

HARVEY B. STONE, M.D.
AND
SAMUEL McLANAHAN, M.D.
BALTIMORE

Surgical attack is at present the accepted method of treatment for cancer of the colon, although one is occasionally surprised to hear grave doubts expressed concerning its value. The doubts, however, do not exist in the minds of those most experienced in the field. Far from ideal though it is, such surgery does offer a very considerable chance of recovery from a condition that otherwise is admittedly hopeless. Those who have enjoyed extensive experience in this type of surgery agree on certain generally accepted principles. For instance, the necessity for preliminary treatment before operation and for careful postoperative handling is well known. Also important, in cases first seen in the phase of obstruction, is the directing of efforts at combating the obstruction before attacking the tumor itself. There are, however, a number of unsettled issues, and it is with these that we propose to deal in this paper. They may be stated thus:

1. Is it better to attempt removal of the lesion immediately in nonobstructed cases, or should stage operations embodying some form of preliminary drainage of the proximal bowel be employed?
2. When the growth is removed, should one try to complete the reconstruction of the alimentary tract at once or leave this for a subsequent procedure?
3. Should the technic of aseptic anastomosis be emphasized or is this of little importance?

We acknowledge as the first and basic principle that no hard and fast rules should be followed, each case being dealt with on its own merits and several alternative methods being given consideration. But however flexible the attack, there are reasons for preferring one alternative to another, and we think it is desirable to discuss these reasons.

We may state our own thesis thus: Unless specific objections present themselves, the ideal treatment of cancer of the colon is immediate primary resection of the lesion, along with a sufficiently adequate portion of bowel and the tributary lymphatic vessels and nodes; this to be followed at once by repair of the alimentary tract by means of a technic of the so-called aseptic type.

This thesis is by no means new; indeed it is as old as colon surgery itself. With the exception of the aseptic technic, it was the first method employed in removing growths situated in the colon. Johannes Mikulicz,[1] however, became dissatisfied with the procedure of resection and immediate anastomosis because of the high mortality rate from peritonitis. Following the lead of Bloch [2] and of Paul,[3] who in turn, as Gibbon and Hodge [4] point out, had been preceded by Bryant and by Barton, Mikulicz in 1903 adopted the exteriorization method and thereby gave emphasis to a new and different principle, which through the next quarter of a century was to be widely heralded and generally employed. In discussing this principle of exteriorization, Rankin [5] has recently referred to it as "probably the greatest single technical factor in advancing colonic surgery." He goes on to point out, however, that it has definite limitations as well as indications and that these have been generally recognized by the modern operator. During the past fifteen years many voices of authority have been heard to champion one or the other principle as applied in the resection of colonic carcinomas. Safety, through the avoidance of the possibility of leakage from an intraperitoneal anastomosis, has been the continuous and urgent appeal of the exteriorization principle. Safety, through the development of new technical methods of intraperitoneal anastomosis, thereby avoiding the many disadvantages of exteriorization, has been the constant goal of those who have developed the modern version of resection and immediate anastomosis.

Halsted [6] early became interested in the development of experimental methods for doing closed types of anastomosis and later invented a special knife to be introduced by rectum for the division of the diaphragm between the anastomosed ends. Parker and Kerr [7] presented their basting stitch operation in 1908, and this method has been widely used since that time. Various types of clamp methods have been introduced since O'Hara [8] presented his instrument in 1901. Among these is the method we have used for more than five years, which has been described by Owings and Stone.[9]

In addition to reasonably satisfactory methods of aseptic anastomosis, other factors have joined to contribute to the ease and safety of resection and immediate anastomosis. Among these are:

1. A better understanding and utilization of preoperative preparation.
2. Modern means of preventing or combating shock and maintaining an adequate fluid balance.
3. Better anesthesia.
4. The use of one or more of the sulfonamides in the prevention or therapeusis of complicating infections.

The group of 191 cases on which the accompanying statistics are based represents operations that we have performed over a twenty year period in six Baltimore hospitals. All the lesions were proximal to the rectum and, if operable, could be removed by the abdominal route.

Operability rates have shown a general tendency to rise, yet great diversity is to be observed in studying various groups. Ochsner and DeBakey [10] reviewed twenty-three reports and found that in fifteen of them there was an operability of 50 per cent or better while in the other eight reports the operability was less than

Read before the Section on Surgery, General and Abdominal, at the Ninety-Third Annual Session of the American Medical Association, Atlantic City, N. J., June 10, 1942.

1. von Mikulicz, Johannes: Chirurgische Erfahrungen über das Darmcarcinom, Arch. f. klin. Chir. **69**: 28, 1903; Small Contributions to the Surgery of the Intestinal Tract, Boston M. & S. J. **148**: 608 (June) 1903.
2. Bloch, Oscar: Om Extra-Abdominal Behandling of Cancer Intestinalis, Nord. med. Ark. **2**: 1-41 (number 1) 1892.
3. Paul, F. T.: Colectomy, Brit. M. J. **1**: 1136 (May 25) 1895.
4. Gibbon, J. H., Jr., and Hodge, C. C.: Aseptic Immediate Anastomosis Following Resection of the Colon for Carcinoma, Ann. Surg. **114**: 635 (Oct.) 1941.
5. Rankin, F. W.: The Principles of Surgery of the Colon, Surg., Gynec. & Obst. **72**: 332 (Feb. 15) 1941.
6. Halsted, W. S.: End to End Suture of the Intestine by a Bulkhead Method, Tr. Am. S. A. **28**: 256, 1910; A Bulkhead Suture of the Intestine, J. Exper. Med. **15**: 216 (March) 1912; Blind End Circular Suture of the Intestine, Closed Ends Abutted and the Double Diaphragm Punctured with a Knife Introduced per Rectum, Ann. Surg. **75**: 356 (March) 1922.
7. Parker, E. M., and Kerr, H. H.: Intestinal Anastomosis Without Open Incisions by Means of Basting Stitches, Bull. Johns Hopkins Hosp. **19**: 132 (May) 1908.
8. O'Hara, M., Jr.: A Method of Performing Anastomosis of Hollow Viscera by a New Instrument, Ann. Surg. **33**: 179 (Feb.) 1901.
9. Owings, J. C., and Stone, H. B.: Technic of Anastomosis Using the Stone Clamp, Surg., Gynec. & Obst. **68**: 95 (Jan.) 1939.
10. Ochsner, Alton, and DeBakey, Michael: Operability, Morbidity and Mortality Factors in Carcinoma of the Colon, Am. J. Surg. **46**: 103 (Oct.) 1939.

50 per cent. Cattell and Sugarbaker,[11] in discussing the colon and rectum, report a rising operability rate from the Lahey Clinic, which was 58.3 per cent in 1929 and has risen to 84 per cent during the past two years. A serious study of operability is futile without knowing all of the many factors concerned, many of which are not apparent in individual reports. Conscientious operators try to increase their operability rates without having too great a concern for mortality. A decision prior to operation concerning the chance of removal of a given tumor is fraught with much uncertainty. Indeed, as we have stressed previously,[12] the decision may be difficult even at the time of operation and may require a careful, discreet beginning of resection to settle the matter. Our own operability rates based on the ratio of the number of tumors removed to the number of patients actually explored are shown in table 1. The rate for the entire group was 77.0 per cent.

Among the 44 patients with inoperable tumors 14 died, giving the high death rate of 31.8 per cent. The complications of perforation and obstruction served to place many of this group beyond the realm of surgical help. The problem of the management of the inoperable patient is a subject worthy of independent consideration.

Preliminary decompression by means of some type of colostomy, or by ileocolostomy in a right sided lesion, is axiomatic in a situation approaching acute obstruction. On the other hand, in the chronically obstructed colon which can be properly prepared by routine methods, and our experience teaches that most of them can, a preliminary drainage operation need only occasionally be used. There is much dissenting opinion on this point and many experienced surgeons advocate the routine employment of preliminary drainage especially for lesions on the left. While in no sense criticizing this practice we are convinced that it should be reserved for special indications, and it is our prediction that experienced operators will employ it less frequently in the future.

Rankin further suggests the advisability of a small concomitant proximal tube colostomy or enterostomy

TABLE 1.—*Carcinoma of Colon: Operability Rate*

	Cases	Resections	Operability
Right	37	33	89.1%
Transverse	30	25	83.3%
Left	124	89	71.7%
Total	191	147	77.0%

where distention and tension of the suture line are to be feared. This we believe to be sound in principle and agree that it is unnecessary as a routine measure.

In our own series of one hundred and four resections with immediate anastomosis of the aseptic type there were only nine instances in which the anastomosis was preceded by some type of preliminary colostomy. Two of these drainage operations were done elsewhere and the other seven were performed because of symptoms indicating an acute degree of obstruction. These 9 patients all survived the subsequent anastomosis. In 29 cases of resection and immediate anastomosis of the open type, only three times was preliminary external drainage utilized.

There was a variety of procedures employed in this series in addition to immediate resection followed by aseptic anastomosis. These were exteriorization according to the "obstructive resection" of Rankin with subsequent closure of the colostomy, an open type of anastomosis immediately following resection and an open type of anastomosis between the sigmoid and a short rectal stump performed after an interval of from two to eleven months from the time of resection. During the latter period, bowel function depended on a temporary sigmoid colostomy. In addition there were 3 cases in which a permanent colostomy remained after the resection of a very low growth.

TABLE 2.—*Carcinoma of Colon: Mortality of Resections Followed by Anastomoses of the Aseptic Type*

	Resections	Deaths	Mortality
Right	16	3	18.7%
Transverse	16	1	6.3%
Left	72	7	9.7%
Total	104	11	10.6%

In the selection of operation, great stress has been laid repeatedly on anatomic and physiologic differences between the two sides of the colon. These differences in turn have led to the general conclusion that primary anastomosis is feasible on the right but dangerous on the left. Our experience reveals, on the other hand, that, when obstruction is not present on the left, there is no great difference between the two sides from the standpoint of resection and immediate anastomosis. It is therefore our contention that one may as safely undertake the procedure on the left as on the right. Indeed, table 2, showing our mortality rates for resection accompanied by aseptic anastomosis, indicates a rate for the left side which is almost one half of that on the right.

Especially on the right side is exteriorization to be avoided because of the physiologic and psychologic complications attendant on ileostomy. The principle so often followed, and recently well rationalized by Fallis,[13] of removing all intestine from and including the terminal ileum to a point well along on the right side of the transverse colon is sound. The types of union may be end to end, side to side or end to side, and these may be carried out by the open or the aseptic method. Because of the frequent discrepancy between the caliber of the ileum and the ascending or transverse colon operators have often resorted to side to side anastomosis. In this group of sixteen aseptic unions on the right it was possible to perform end to end anastomosis fourteen times with, however, three deaths. The ten open anastomoses were with one exception side to side and accounted for one death.

Uncomplicated lesions of the transverse colon lend themselves well to all of the several principles of treatment. Mayo and Simpson [14] showed that extraperitoneal resection in this area had produced a mortality of

11. Cattell, R. B., and Sugarbaker, E. D.: Recent Advances in the Surgical Treatment of Carcinoma of the Colon and Rectum, Surgery **11**: 644 (April) 1942.

12. Stone, H. B., and McLanahan, Samuel: Surgical Aspects of Carcinoma of the Large Bowel, J. A. M. A. **113**: 2282 (Dec. 23) 1939.

13. Fallis, L. S.: Multiple Stage Resections of the Colon, Texas State J. Med. **37**: 463 (Nov.) 1941.

14. Mayo, C. W., and Simpson, W. C.: Surgical Procedures for Carcinoma of the Transverse Colon, Ann. Surg. **109**: 430 (March) 1939.

20 per cent in 95 cases, whereas their group of thirty-six segmental resections with primary anastomosis had yielded an operative mortality of only 11 per cent. They did not, however, state the type of union performed. Our small group of 16 cases carried out in one stage with an aseptic type of anastomosis showed only one death, or a rate of 6.3 per cent. The splenic flexure represents a portion of the colon distally placed from the

TABLE 3.—*Carcinoma of Colon: Comparison of Types of Operation*

	Cases	Deaths	Mortality
Exploratory or palliative	44	14	31.8%
vs.			
Resections	147	19	12.9%
Aseptic anastomoses	104	11	10.6%
vs.			
Open anastomoses	34	7	20.6%

origin of its blood supply. It depends on terminal ramifications of the left branch of the middle colic artery and of the ascending branch of the left colic artery. For this reason a wide excision of intestine is important in order that one may bring the points of resection nearer the source of the blood supply. This may entail the removal of a large part of the colon on the left side, with a subsequent anastomosis between the transverse colon and the sigmoid. We have on occasion extraperitonealized the anastomosis as an added measure of safety. In performing any end to end union in the colon, one must ever be mindful of Lockhart-Mummery's classic lesson with regard to blood supply. He taught that clamps should be applied at an angle so that a greater portion of the antimesenteric border would be removed, thus assuring adequate blood supply to the cut margins of the bowel.

The left side of the colon has offered the greatest opportunity for employment of the ideal procedure. And indeed this procedure has in our opinion permitted the radical removal of wide areas of mesentery. This has been proved so important by the brilliant and painstaking pathologic studies of David and Gilchrist,[15] and of Coller, Kay and MacIntyre [16] and others. In 72 cases in which it was possible to perform aseptic anastomosis immediately following resection the mortality rate was 9.7 per cent. Many of these lesions lay deep in the pelvis and presented difficult technical problems. In nineteen left sided lesions an open type of anastomosis following the resection resulted in five deaths, a mortality rate of 26.3 per cent. Three of these deaths were attributable to an unsuccessful "tube anastomosis" whereby the proximal sigmoid end was invaginated into a short rectal stump by means of an attached rectal tube. It soon became apparent that no anastomosis should be immediately performed at this low level unless an aseptic one could be comfortably carried out. This was further attested by the happy outcome in four instances in which a temporary terminal colostomy was performed and where this same colostomy loop at a later stage was safely implanted into the short rectal stump by the same type of "tube anastomosis."

15. Gilchrist, R. K., and David, V. C.: Lymphatic Spread of Carcinoma of the Rectum, Ann. Surg. **108**: 621 (Oct.) 1938

16. Coller, F. A.; Kay, E. B., and MacIntyre, R. S.: Regional Lymphatic Metastasis of Carcinoma of the Rectum, Surgery **8**: 294 (Aug.) 1940.

In the earlier cases of this group aseptic anastomosis according to the Parker-Kerr technic was the practice, while in the latter half of the time some form of clamp anastomosis has been employed. Special attention should be directed to the appendices epiploicae in preparing the intestine for suturing. These troublesome tags should be carefully dissected away before the bowel is ready for crushing. Following completion of the anastomosis it must be carefully tested with the finger for patency, because in more than one instance we have inadvertently caught the opposing wall with sutures and have had to take measures to release them. A rectal tube passed up through a sigmoid anastomosis and allowed to remain in place is a valuable measure.

The Miller-Abbott tube has been reported as of great benefit in giving a concomitant decompression in right sided lesions and in the treatment of postoperative distention. We have found it useful in the latter complication on a number of occasions.

Our experiences with succinyl sulfathiazole in the reduction of the intestinal flora preoperatively have been limited and do not enable us to draw conclusions. However, the investigations of Poth [17] and the results following the use of this drug in the wards of the Johns Hopkins Hospital are most convincing. The local use of sulfanilamide within the peritoneal cavity and in the wound is undoubtedly of great assistance in combating infection and has become largely a matter of routine. Rankin,[18] in discussing aseptic anastomosis with his clamp, ventures the belief that modern chemotherapeutic agents may now justify one in doing an open anastomosis if that is deemed preferable. While this is undoubtedly true, it carries with it the implication of a temptation to let up a little on standards of technic, to which temptation the conscientious surgeon will not allow himself to succumb.

Allen,[19] Gibbon and Hodge,[4] Rankin [18] and many others have written much to emphasize the superiority

TABLE 4.—*Carcinoma of the Colon: Causes of Death*

All resections	Cases
Directly related to operative procedure:	
Peritonitis	13
Wound infection	1
Indirectly related to operative procedure:	
Embolism	3
Pneumonia	1
Myocardial failure	1
Total	19
Resection and immediate aseptic anastomosis	
Directly related to operative procedure:	
Peritonitis	8
Indirectly related to operative procedure:	
Embolism	2
Pneumonia	1
Total	11

of aseptic anastomosis over open anastomosis. Again, it is the ideal type of union, which, however, may not always be employed. Our own experience with it not only in malignant disease but in other types of colonic disease requiring resection has convinced us of its ease of accomplishment and of its true worth in terms of end results. This series includes 104 cases in which

17. Poth, E. J.: Succinyl Sulfathiazole: An Adjuvant in Surgery of the Large Bowel, J. A. M. A. **120**: 265 (Sept. 26) 1942.

18. Rankin, F. W.: Modern Management of Cancer of the Lower Gastrointestinal Tract, Surg., Gynec. & Obst. **74**: 905 (May) 1942.

19. Allen, A. W.: Right Colectomy for Malignant Disease, J. A. M. A. **109**: 923 (Sept. 18) 1937.

aseptic anastomoses were performed. The mortality rate was 10.6 per cent (table 3), while that for a smaller series of thirty-four open unions was 20.6 per cent.

In analyzing the deaths, infection and especially peritonitis stand out as the most frequent causes. Among the one hundred and forty-seven resections of all sorts, there were nineteen deaths, or a mortality rate of 12.9 per cent. Fourteen, or 73.6 per cent, of these nineteen were from causes directly related to the operative procedure, while the remaining five, or 26.4 per cent, were due to causes indirectly related (table 4). Hence it is to be observed that in both types of anastomosis infection is the great cause of mortality.

Considering the smaller special group of 104 cases of resection and immediate aseptic anastomosis, the deaths are still predominantly associated with peritonitis. Of the eleven fatalities in this series, eight could be traced to a probable leak about the site of anastomosis, with a resulting peritonitis. Of the remaining three, two were due to embolism and one to pneumonia. These eight fatalities represent the vulnerable point of this method, and yet they are to be set against the hazards of peritonitis, multiple operations and multiple anesthesias inherent in other technics. It is our firm belief that a still more careful selection of patients, a more carefully applied technic and the use of newer aids already suggested here will result in a steady reduction in mortality for those who judiciously employed this method.

CONCLUSIONS

1. The variety of clinical problems presented by carcinoma of the colon requires that the surgeon have available a number of technical methods of attack on this disease.

2. Where there is complete or nearly complete obstruction, relief of the obstruction is the primary objective. Where conservative medical treatment is adequate to prepare the patient properly and to deal with slight degrees of obstruction, primary colostomy is not essential.

3. The sooner the growth can be removed, the better chance there is to secure a definite cure; therefore, in nonobstructed cases resection of the disease is the first surgical objective.

4. If circumstances permit, immediate anastomosis averts the necessity for multiple anesthesias and operations. Therefore, under favorable conditions, resection should be followed by immediate anastomosis.

5. The avoidance of open contamination is an important feature of the technical handling of these cases. Therefore, an aseptic type of anastomosis is a desirable technical procedure.

6. The ideal type of operation, in view of the foregoing statements, may be formulated as immediate resection, immediate anastomosis and utilization of the aspects of the aseptic technic.

7. The material we present herewith provides evidence that in a reasonably large number of cases, with a reasonably high percentage of operability, this ideal procedure may be undertaken with a mortality which is within reasonable limits.

8. There is no intention to present this method as the only proper procedure, since many alternative surgical maneuvers may be advisable or necessary in a considerable number of cases.

18 West Franklin Street.

ABSTRACT OF DISCUSSION

ON PAPERS OF DRS. LAHEY AND SANDERSON AND DRS. STONE AND MC LANAHAN

DR. C. W. MAYO, Rochester, Minn.: The substance of the paper by Drs. Stone and McLanahan is that the combined details of preoperative preparation, anesthesia, operation by the aseptic technic and the postoperative care in selected cases have led to their accomplishing the operation in question with a reasonably low mortality. I agree with them on the advantage of the one stage resection in cases in which it should be performed, from the standpoints of time that the malignant growth remains in the body and economy of time and money to the patient, but I disagree that "aseptic" anastomosis in resection of the colon for carcinoma is the answer for all surgeons as to the method of performing the one stage operation with a low mortality. In my defense of the open one stage colonic anastomosis, I must be pardoned for presenting personal experience with 83 cases of carcinoma of the right colon with a mortality rate of 8.4 per cent, counting deaths from all causes regardless of the time the patient spent in the hospital. Of the eighty-three operations, thirty-three were performed with end to end anastomosis between the ileum and the transverse colon, over rubber covered clamps, with an inner row of catgut and an outer row of silk sutures, with a mortality rate of 3 per cent, the one death being of a man 82 years old. In not one of the 83 cases was enterostomy performed in addition to resection. In the same period during which these eighty-three operations were performed, I performed but six multiple stage procedures in this portion of the bowel. In the transverse, descending or sigmoid colon, if the malignant lesion has not perforated the serosa and is not large, if it tends to grow into the lumen of the bowel and the liver and adjacent glands seem to be free of metastasis by palpation, and if the bowel is redundant enough so that one can get well away from the growth and anastomosis can be accomplished without tension, I would agree that a one stage resection of the left colon by the open or aseptic method, as determined by the skill and judgment of the individual surgeon, is in order. Such growths, however, are not as frequent in the left colon as those which in my opinion require more radical operations, although when the lesion is situated in the lower portion of the sigmoid my choice of procedure usually is a one stage combined abdominoperineal resection. When the growth is situated higher in the sigmoid or in the descending colon up to the splenic flexure, my most common selection is an extraperitoneal resection with temporary catheter colostomy next to the proximal clamp, of which operations I have performed one hundred and eighty-four, with a mortality rate of 5.4 per cent.

DR. HENRY W. CAVE, New York: Dr. Lahey has discredited the timeworn theory that all growths on the right half of the colon always show cachexia and anemia and all growths on the left side of the colon almost always indicate an obstruction. Many people with colonic growths on the left side of the colon present pain in the right lower quadrant; many are operated on for acute appendicitis because the right colon is the most distensible part of the colon and is pain producing, especially the cecum, when it is distended. The modified Mikulicz procedure which Dr. Lahey has depicted certainly removes radically all the lymph bearing structures, lymph channels and nodes. I have carried out this procedure in 6 cases. As low a mortality rate can be obtained, however, with other types of procedures, such as ileocolostomy, either in one or two stages. Dr. Lahey's thought in presenting this has been predicated on his conviction that no matter how able the surgeon, no matter what exposure, no matter what type of suture material or the type of suture, there was always a risk of leakage at the suture line, and any type of exteriorization was safer. In 19 instances of right sided growths, I have in the last two years used the Miller-Abbott tube or colectomy for ulcerative colitis two or three days prior to operation in order to decompress the lower ileum and the right colon. This takes a strain off the suture line after operation and there is no two stage procedure necessary. An interesting experience occurred recently with 43 cases of ileitis in which sulfadiazine was used by Dr. Thomas

Mackie and his group, and they feel encouraged about the treatment of this disease with that particular drug. In the majority of instances the ileotransverse colostomy is wise. In any type of growth in the left colon, if there is the slightest distention a cecostomy prior to or concomitant with the operation, with primary resection and immediate anastomosis and a paralysis of the sphincter ani muscle either by cutting or by forceful dilation, is the safest procedure for a left sided growth. However, in defense of the Mikulicz or the exteriorization type, that too has proved safe and successful, provided one cuts the splenophrenic colic ligament and dislocates the entire left colon, bringing out the growth and later cutting it off and cutting down the spur. Sulfasuxidine preoperatively will certainly cut down the bacterial flora. Paralysis or cutting of the sphincter ani muscle is another point I wish to stress; and also a suggestion given me by Leland McKittrick to put down a Miller-Abbott tube four or five days before attempting a right sided colectomy or a left colectomy or a total colectomy.

DR. ARTHUR W. ALLEN, Boston: Dr. Lahey has met the problem by the exteriorization method; Drs. Stone and McLanahan by aseptic anastomosis, usually without decompression of the bowel. Dr. Cave calls attention to the use of the Miller-Abbott tube with primary suture preliminary to resection. I have met the situation in a different manner, and that is by a two stage procedure, first a preliminary anastomosis between the ileum and transverse colon in the right colon lesions and a preliminary decompression by cecostomy for left colon lesions. I came to this conclusion because the results were so poor by other methods. In an analysis to determine why there was a high mortality in certain groups of our cases, there were only two important factors. One was the method and the other the experience of the surgeon. I found in an analysis of a total of 400 cases done in one stage that there was a mortality rate of just under 20 per cent, whereas in 253 cases done during the same interval of time and in cases that were not as good risks as those in which one stage procedures were employed, there was a definite reduction in the mortality, from 19.2 in one stage operations to 13 per cent with two stage resection. Therefore I have attempted to carry on with the two stage method in most cases. The type of anastomosis seemed to play a role in the mortality rate. In the Parker-Kerr basting stitch technic the mortality rate was 11.6 per cent in 86 consecutive cases; in all the other types there was a higher percentage of mortality in our hospital. In the two year interval 1939-1941, there was a different picture. Here we have the Parker-Kerr anastomosis applied by the staff members. The mortality rate of 6.3 per cent in this group of 79 cases has incidentally had the benefit of the Miller-Abbott tube and the sulfonamides. It is, however, a satisfactory record. My early mortality rate in one stage procedures was so high that I had to find a better solution. In my hands the two stage operation with primary aseptic anastomosis has resulted in a mortality rate that compares favorably with Dr. Lahey's and Dr. Stone's. In inflammatory lesions the anastomosis should not be made by the basting stitch technic. In 3 instances in the large and 1 in the small intestine, I have had a late stenosis develop at the suture line following resections for inflammatory lesions. These anastomoses should be made in some other manner, perhaps with a preliminary well defunctioned colon; then after a period of three months an open anastomosis is the method of choice.

DR. FRANK H. LAHEY, Boston: Let's forget the old Mikulicz operation which left carcinomatous bowel out on the abdominal wall with the possibility of local implantations in the abdominal wound. Any modern Mikulicz operation should include removal of the lesion at the time one does it, with removal of the same amount of mesentery that can be taken out by a primary resection. No one can select the type of surgery to apply to these complicated cases except with a large experience, and with this will come a method which for him is suitable. One can standardize it only by doing it often, and with that will be established a method for that individual. There is no need to worry about multiple anesthesias, if one has a good anesthetist. Spinal anesthesia is the type we have used, and that presupposes a good anesthetist; otherwise one will have plenty of trouble whether the anesthesias are multiple or single, just as one will if one has an inexpert surgeon. In splenic flexure carcinoma, do not forget that the mesentery of the splenic flexure at the root is very thin and delicate. When you get close to the jejunal fossa, if you take out very much and try to sew it together, the first cough postoperatively will blow it apart and you then have an internal aperture for a hernia. It is therefore important to have a good cuff of mesenteric root where the jejunum becomes retroperitoneal. In 25 per cent of the cases of ileitis that we see, there are fistulas into the bladder, into the vagina, beside the rectum or into the sigmoid. These are the cases in which we like to do the resections in order to get rid of the inflammatory lesion and of fistulas. Never plant a Mikulicz enterostomy in the midline in the epigastrium. Why? You will remember if you recall a midline epigastric ventral hernia. What is the characteristic of it? It pulls apart. Why? Because of the insertion of the transversalis into the peritoneum. You can transpose and implant any Mikulicz enterostomy to the left side of the abdominal wall. If need be you can take out all the transverse colon and ascending colon, mobilize the splenic flexure, drop it, and the ileum will go well over to the left side. We have several problems such as this to deal with, such as a pericecal abscess from an inflammatory lesion about a malignant growth of the ascending colon which has been drained through the right side. Obviously, that is an impossible secondary wound into which to plant a Mikulicz enterostomy. You can make a counter incision on the left, resect the ascending and transverse colon and implant the Mikulicz enterostomy into the left rectus. Never fail to have a colostomy or ileostomy looked at on the night of operation to make sure it is viable. Investigation of any colostomy or ileostomy the night of the operation for viability is extremely important.

DR. HARVEY B. STONE, Baltimore: I agree with Dr. Lahey that, while technical details are important, each man has to work those out for himself. The basic plea of our paper was for a reassessment of the principles concerned in the attack on cancer of the large bowel. There are two elements concerned: first, the time element; second, the safety element. The sooner a malignant growth anywhere can be removed, the better the prospects of cure. Therefore, as it is possible, with safety, the first objective should be the early removal of the disease to stop its progress. A subordinate element of the time factor concerns the expense, the delay, the additional hazard to the patient, of multiple operations. It is not of primary importance but is worthy of serious consideration. The only reason that any one would controvert the principle that the immediate objective of the attack on cancer of the bowel should be its prompt removal is that prompt removal may not be safe. The history of colon surgery explains clearly the processes through which surgical thought has gone. The first attempt was immediate removal of the growth. The serious mortality encountered forced an alteration of that principle. Then technical improvements developed which set aside much of the danger that the pioneers had encountered in their immediate attack on the growth. The Mikulicz principle, preparatory treatment, improvement in anesthesia, and all the things which have been mentioned in detail this morning have combined to lead us to feel that it is time for a reassessment of our basic views; whether we cannot revert, with the advantage of all these improvements, again to the point of view that our primary principle of attack should be the immediate removal of the disease. We hope that the safety factor which originally made us defer the primary attack has now been met sufficiently to do this. In confirmation of that opinion, I should like to call attention to the figures cited by Dr. Allen. His improved mortality figures in his last chart of aseptic resections with preliminary colostomy are almost identical with our mortality figures for aseptic colectomy without preliminary colostomy. I urge you to consider whether the factors of safety have not advanced to a stage in which it is reasonable to alter our views as to the necessity of delaying attack on the disease; and the whole purpose of this discussion is the successful and permanent removal of the disease. Our plea is that our technical approach now justifies the adoption of immediate removal of the cancer as the first objective of our attack.

GASTROINTESTINAL DISEASE AMONG INDUSTRIAL WORKERS

LEMUEL C. McGEE, M.D., PH.D.
WILMINGTON, DEL.
AND
J. D. CREGER, M.D.
PULASKI, VA.

To those of us with a particular interest in the health of men in industry it is well known that illness and injury arising out of industrial occupation account for but a small part of industrial absenteeism. Experience in various types of industry has shown that somewhere between 8 and 15 days are lost from work because of ordinary sickness and injury for each day lost because of sickness and injury of occupational origin.[1] This fact is more impressive when it is recognized that when occupation is but a contributing factor to a disability (acute or otherwise) lost time from that disability is apt to be charged in the record to an occupational origin. During the past two decades much has been written, said and done to protect man from many hazards of his job. Those physicians, industrial leaders and legislative

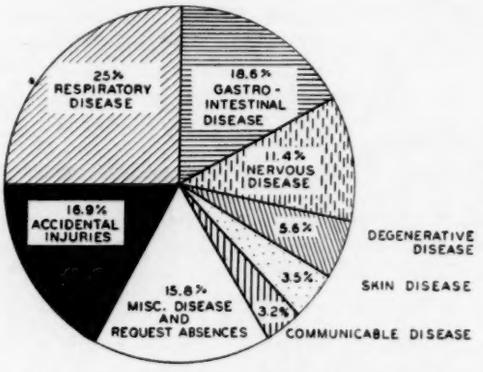


Fig. 1.—Cause of 40,942 days lost time (severity).

planners who have participated in the recognized progress in this direction should take pardonable pride in their accomplishments. If the occupational origin of absenteeism represents roughly but one tenth of the total working time lost, surely there is good reason to seek means of reduction in the economic waste represented by the other nine tenths. Americans are thinking, with an intensity hitherto unknown, in terms of the total manpower of the nation and the best utilization of that manpower. For possibly the first time in our national history we are finding an acute need for our reserves—a need for the full productive capacity of every man and woman.

It is axiomatic that sickness should be prevented when possible, thereby avoiding the necessity for treatment. The prevention of illness in industry is a concern of both management and labor, the industrial physician and the individual employee, public health organizations and private practitioners. It constitutes a challenging community and national problem.

Acute respiratory disease causes the greatest amount of industrial absenteeism.[1] For acute respiratory disease, it must be admitted, medical science has little or no effective prevention. It is our purpose in the present report to direct attention to the second greatest cause of absenteeism in the experience of a part of the chemical industry. Acute disorders and disease of the gastrointestinal tract as a group rank next to acute respiratory disease in severity and frequency in this experience. Other industries, as well as the armies of the United Nations, have reported disease of the gastrointestinal system to be a significant cause of illness.[2]

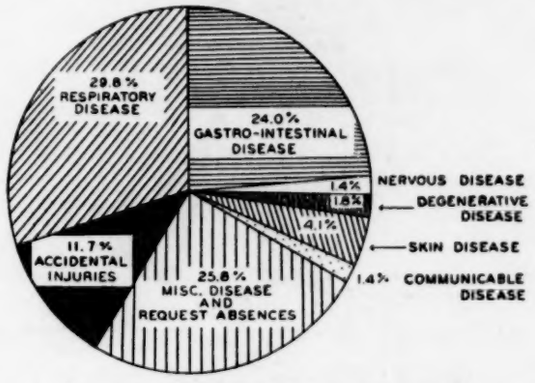


Fig. 2.—Cause of 5,402 absences (frequency).

OBSERVATIONS

During the year 1941 the medical department of the Hercules Powder Company directed particular attention to the nature of complaints referable to the digestive system. The absentee figures in the present report represent the predominantly male personnel of several plants, varying in average payroll size from less than 100 to more than 4,000 employees. Because of inherent limitations in obtaining accurate information regarding illness, particularly illness leading to absences of but one or two days' duration, certain individual plant reports were admittedly incomplete. For reasonable evaluation we believe that the figures presented here represent approximately 20 million man hours

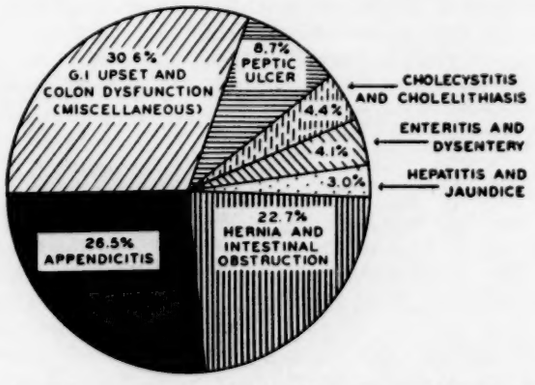


Fig. 3.—Cause of 7,605 days lost time from disease of digestive system (severity).

worked and are equivalent to the experience of an average payroll of 10,000 men for the calendar year of 1941. The occupations of the men varied from office work to outdoor construction labor. The one factor

Read before the Section on Preventive and Industrial Medicine and Public Health at the Ninety-Third Annual Session of the American Medical Association, Atlantic City, N. J., June 10, 1942.

1. Piersol, G. M.: Role of the Physician in Industry in the Control of Acute Respiratory Diseases, J. A. M. A. **116**: 1339-1342 (March 29) 1941.

2. Bashford, Henry: Some Aspects of Sick Absence in Industry, J. Roy. San. Inst. **60**: 360-363 (April) 1940. Day, F. E. H.: Gastrointestinal Diseases Among Steel Workers, Canad. Pub. Health J. **30**: 555-557 (Nov.) 1939. Pepper, O. H. P.: Disease Expectancy in the New Army, War Med. **1**: 463-469 (July) 1941. Hurst, Arthur: Digestive Disorders in Soldiers, Am. J. Digest. Dis. **8**: 321-323 (Sept.) 1941.

common to the occupation of these employees was that their jobs were directly concerned with the war effort of a chemical industry.

This group lost 40,943 days of their expected working hours, from all causes, an average of 4.1 days per employee for the year. There were 34,018 days lost because of sickness and 6,925 days lost because of accidental injury. Twenty-five per cent of all lost time in this group resulted from respiratory disease, 18.6 per cent from disease of the gastrointestinal system, 11.4 per cent from disease of the nervous system (the diagnoses of neurosis and psychosis were frequent in this group) and 5.6 per cent from degenerative disease (primarily of the cardiovascular system). The relative importance of the broad causes of absenteeism is shown for severity in figure 1, for frequency in figure 2.

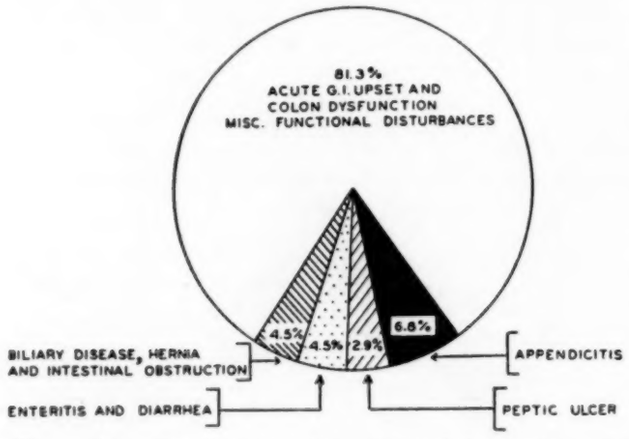


Fig. 4.—Cause of 1,292 absences due to disease of the digestive system (frequency).

Of the total of 7,605 days lost because of gastrointestinal disease, 79.8 per cent of the time lost was due to acute digestive upsets, dysfunction of the colon, acute appendicitis, hernia and intestinal obstruction (fig. 3). The designation gastrointestinal upset includes instances of irritable colon, the nausea of postalcoholic malaise and abdominal discomfort of uncertain origin. The relative importance of these gastrointestinal causes of lost time from the point of view of frequency is shown in figure 4.

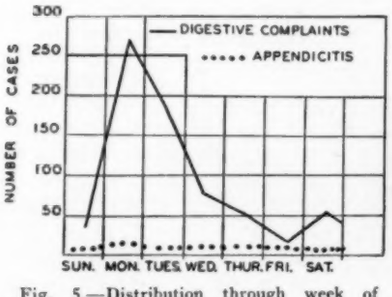


Fig. 5.—Distribution through week of digestive complaints resulting in visit to medical unit (experience of two plants over six month period).

When the number of workmen with digestive complaints reporting to the plant physician is plotted against the days of the week, it is often found that such complaints occur with increased frequency on Monday. The composite experence of two plants during the past six months is presented in figure 5. It has been our observation that well known American habits of "relaxing" over the week end (excesses in food and alcohol and insufficient sleep) play a prominent role in the causation of Monday morning dyspepsias. Holidays have the same undesirable reputation with medical departments of plants. Figure 6 shows the influence of past Christmas and New Year diversions on the frequency of digestive complaints in two plants. This figure includes only those who reported for work and sought assistance at the plant medical quarters.

COMMENT

There is an increasing consciousness on the part of physicians and industrial management alike of the loss in production which results from sickness of industrial workers. The present acute demands on industrial output together with the increasing shortage of both skilled and unskilled personnel have thrown into glaring relief all types of worker absenteeism.

Physicians should be the first group to admit the influence of the unsolved medical problems, of the lack of scientific knowledge of many acute diseases which afflict man during the most active and productive period of his life, on absenteeism. This important factor in loss of industrial production is one which must await further painstaking progress. An examination of this and other reports from medical departments in industry indicates, however, that lack of medical knowledge is by no means the entire problem. There is reason to believe that knowledge now available is not properly or completely utilized for its full value. Many absences due to disease or dysfunction of the gastrointestinal system are preventable. From our experience with digestive complaints in industry, we question whether we are using all opportunities to practice preventive medicine. The workman needs to replace erroneous ideas by factual and correct concepts for the care of his health. From our experience we feel that these workmen welcome and respond to, in an encouraging manner, the precepts of physicians who take time to explain useful health facts. The personnel of industry welcomes knowledge concerning the functions of the human body and the causative factors of ill health. The physician will do well to take time to supply useful medical information in the effort to counteract and replace much current misinformation. The past record of preventive medicine in this direction augurs well for increased effort along rational lines. This is an equal responsibility of the physician in private practice, the physician in public health service and the physician in industrial medicine. No one group alone can meet the challenge. The individual industrial worker can do much to increase his serviceability to himself, his family and his country. Voluntary abstemiousness in food and drink,

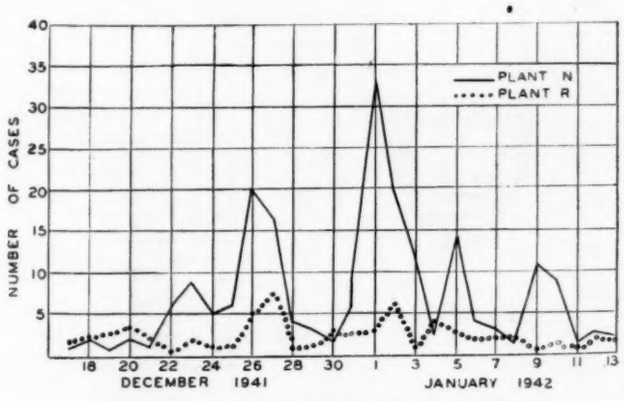


Fig. 6.—Digestive complaints in relation to holidays.

a more wholesome use of idle hours and a proper respect both for adequate sleep and for the inherent limitations of all human flesh will give men of industry large returns.

ABSTRACT OF DISCUSSION

DR. FREDERICK H. SHILLITO, New York: The authors have brought out that gastrointestinal diseases are an important cause of nonoccupational absenteeism. I am sure that others can report experiences which substantiate these findings. In a group of 650 ground personnel servicing transoceanic planes, we have tabulated all nonoccupational illnesses. Absenteeism of this kind has amounted to 2.25 days per man in a period of twelve months ended recently. Respiratory diseases have been the cause of 49.8 per cent of this lost time. Gastrointestinal complaints, the next most frequent single cause of disability, account for 18.8 per cent. This latter figure of ours is close to the authors' figure of 18.6. Similarly, Monday is the most frequent day of the week for gastrointestinal upsets. A discrepancy between our figures of nonoccupational absenteeism is seen in the respiratory illnesses. The common cold, infection of the sinuses, bronchitis and pneumonitis account for about 50 per cent of our total and only 25 per cent of the authors'. This difference may be explained by the fact that they have drawn their averages from employees in a number of plants located in all parts of the country. Our figures, on the other hand, are drawn from a group in one temperate area with a winter season with changeable weather attended by a high incidence of upper respiratory infections in all classes and in all occupations.

DR. STANLEY H. OSBORN, Hartford, Conn.: One interesting point brought out is absenteeism on Mondays and on December 26. There was also a great increase of absenteeism on January 5 and 6. I do not know what days those fell on. In several of the medical societies over the country during the last two or three months those who have been interested in war production have expressed the opinion that much can be done to increase war production by discussing this matter of the day of return to work with the staffs of hospitals and the state, county and city medical societies. This is necessary if we are going to put forth our full efforts in this war to check this tendency. Some physicians say to the patient "Oh, you will be all right to go back to work Monday" or, again, "It will be all right to go back on July 5." It is a habit to mention some particular day, a day after a holiday or a Monday. This may not apply to this paper, for the authors have checked up carefully, apparently, but it is a point to bring out as one angle of absenteeism. It is vital not to disturb production by letting one or two men step out of the production line when they should be on the job. Anything we can do to encourage patients to remain at work when it is unnecessary to be absent, anything we can do to urge patients to get back as soon as they can and not on "Monday," or "after the holiday," will help win this war.

DR. LEMUEL C. MCGEE, Wilmington, Del.: I have no answer as to the cause of the slight increase in digestive complaints on January 5 and 6. There are undoubtedly other factors which we cannot evaluate now, because there are many variables. The two factors of holidays and week ends were outstanding and apparently could be evaluated regardless of other factors. The second item, that of the attitude of physicians in private practice who see these men, is significant. I suspect that when I was in private practice I was not aware, as I now am, of the carelessness with which I told a patient to remain away from work. I probably leaned over backward in my recommendations in the fear that something might happen to aggravate his illness or injury. In many instances the patient would have been better to go to work. The physician should take the time to inquire regarding the nature of the patient's industrial activity to determine accurately whether or not that activity would handicap him in his recovery. Many patients will recover more quickly by following their occupation than by remaining restive and away from work. We are trying to establish this idea without having physicians feel that we are interfering with the patient's, that is, the employee's, personal welfare.

SYPHILIS AMONG MEN OF DRAFT AGE IN THE UNITED STATES

AN ANALYSIS OF 1,895,778 SEROLOGIC REPORTS OF MEN AGED 21-35 WHO WERE EXAMINED UNDER THE SELECTIVE TRAINING AND SERVICE ACT OF 1940

R. A. VONDERLEHR, M.D.
Assistant Surgeon General, U. S. Public Health Service
AND
LIDA J. USILTON, M.A.
Principal Statistician, Division of Venereal Diseases,
U. S. Public Health Service
WASHINGTON, D. C.

For years those struggling with the syphilis problem in the United States have been fighting an unknown antagonist. What is the problem? Where is it? Lack of satisfactory answers to these questions has handicapped every effort at syphilis control. The objective of this study is to discover, for the purpose of applying the machinery of control more efficiently, what and where the syphilis problem is.

SOURCE AND NATURE OF MATERIAL

The data used were taken from the reports of clinical examinations and blood tests given to 2,093,138 selectees and volunteers through Aug. 31, 1941. The Selective Training and Service Act of 1940 requires a routine serologic blood test for syphilis as a part of the general examination of every draftee and volunteer. The results of these tests were recorded in quadruplicate on standard report forms, together with a statement by the examining physician as to the presence of primary or secondary lesions. One copy of each form was forwarded to the United States Public Health Service by the health officers of forty-four states and the District of Columbia. Through April 15, 1941 1,051,985 reports of blood tests had been received. Another 1,041,153 were received through Aug. 31, 1941. A summary of the first reports has been published.[1]

The study does not include data from Idaho, Kentucky, Oregon and Vermont. These states did not use the standard report forms, and the data they supplied were incomplete. A further reduction in the number of cases included in the study was made when all men under 21 and over 35 were excluded. In most states their number was too small to yield rates which could be used with confidence. In addition, men of unknown age or residence were excluded because it was impossible to classify them properly. Finally, since races other than Negro and white were grouped with unknowns in the tabulations, they were excluded also. The study therefore deals with white and Negro men of known residence, aged 21 to 35 inclusive.

The proportion of the total sample lost because of the exclusions just described was small. Of the total 2,093,138 men for whom reports were received, 114,865 were excluded for age and another 82,495 for lack of data regarding race or residence. Thus, reports on 1,895,778 individuals, 90.6 per cent of the total number reported, form the basis for all calculations.

DEFINITION OF RATES

All rates represent the proportion of men between the ages of 21 and 35 with suggestive early lesions or with positive or doubtful serologic test results. "Observed" rates refer to the group actually examined.

1. Vonderlehr, R. A., and Usilton, Lida J.: Syphilis Among Selectees and Volunteers, J. A. M. A. **117**: 1350 (Oct. 18) 1941.

"Corrected" rates are an estimate of the prevalence in the entire male population between the ages of 21 and 35.

It might be objected that the inclusion of doubtful tests among the positives, by increasing the total number of infections, would make the rate too high. However, in the 1941 evaluation of serodiagnostic tests for syphilis [2] less than 0.3 per cent of positive reactions were found in known nonsyphilitic bloods, whereas at least 10 to 15 per cent of known syphilitic bloods gave negative reactions. It is therefore highly probable that the total number of positive reports would be increased rather than decreased if an infallible criterion for the presence or absence of syphilis could be found and applied. This interpretation is, of course, valid for statistical purposes only. It might lead to tragic errors if applied to the diagnosis of individual cases.

CORRECTION FACTORS

The chief factor which required correction in the rates was that of age. The younger men, for the most part without dependents or occupations to defer them from the draft, were numerically more strongly represented than the older men. This bias was constant throughout the sample and, since positive blood tests were found more and more frequently with increasing age, had the effect of lowering the rates. Consequently the correction for age raised the national rates in every case. Among the rates corrected for age only, i. e. the rates specific for race and residence, there is only one instance in which correction produced a reduction in rate. This was among rural Negroes in Kansas, where, probably because of the small number tested, a higher rate was found among the younger men. Similarly there was only one state in which the total rate for either whites or Negroes was lower after correction. In New Mexico the Negro rate was reduced from 318.8

TABLE 1.—*Syphilis Rates per Thousand White and Negro Men Aged 21-35 in the United States, Based on 1,895,778 Selectee Serologic Reports and Arranged in Descending Order by States, U. S. Census Division and Region*

White		Negro		Total	
Area	Syphilis Rate	Area	Syphilis Rate	Area	Syphilis Rate
State:		State:		State:	
1. New Mexico	54.2	1. Florida	405.9	1. Mississippi	171.5
2. Texas	53.4	2. Texas	343.2	2. Florida	158.6
3. Florida	53.3	3. Georgia	327.6	3. South Carolina	145.5
4. Arizona	48.9	4. Maryland	324.6	4. Georgia	133.2
5. South Carolina	48.8	5. Mississippi	321.6	5. Louisiana	116.5
6. West Virginia	46.9	6. Arkansas	314.3	6. Arkansas	98.6
7. Oklahoma	39.5	7. New Mexico	304.8	7. Texas	93.4
8. Tennessee	39.4	8. South Carolina	296.3	8. District of Columbia	92.7
9. Georgia	39.0	9. Arizona	295.8	9. Alabama	92.3
10. Louisiana	37.9	10. Tennessee	277.8	10. North Carolina	84.6
11. Mississippi	35.2	11. District of Columbia	272.9	11. Tennessee	81.1
12. Nevada	32.1	12. Louisiana	272.0	12. Virginia	80.8
13. Virginia	31.0	13. Indiana	267.2	13. Maryland	77.3
14. Arkansas	30.0	14. Oklahoma	254.5	14. Arizona	60.4
15. Indiana	29.9	15. Virginia	245.9	15. West Virginia	57.2
16. Missouri	28.5	16. Delaware	239.6	16. New Mexico	56.5
17. North Carolina	28.5	17. North Carolina	237.4	17. Oklahoma	54.7
18. Maryland	28.4	18. Missouri	231.6	18. Delaware	51.5
19. Alabama	28.2	19. Alabama	227.1	19. Missouri	41.6
20. California	27.0	20. California	212.3	20. Indiana	38.3
21. Maine	26.9	21. West Virginia	211.7	21. Nevada	32.1
22. Wyoming	25.8	22. Illinois	211.4	22. California	30.7
23. District of Columbia	23.8	23. Kansas	210.5	23. Ohio	30.1
24. Ohio	21.9	24. Connecticut	207.1	24. Illinois	30.0
25. Delaware	21.8	25. Nebraska	204.4	25. Kansas	26.9
26. Illinois	21.1	26. Colorado	201.3	26. Maine	26.9
27. Kansas	20.5	27. New York	197.3	27. Wyoming	25.8
28. Colorado	20.2	28. New Jersey	193.0	28. Pennsylvania	24.7
29. Pennsylvania	17.0	29. Ohio	191.2	29. Michigan	23.5
30. Michigan	16.4	30. Pennsylvania	190.5	30. New York	22.8
31. Iowa	15.9	31. Michigan	182.6	31. New Jersey	22.0
32. Washington	15.6	32. Iowa	182.1	32. Colorado	21.9
33. New York	14.7	33. Washington	174.6	33. Iowa	16.8
34. Montana	14.1	34. Wisconsin	157.0	34. Washington	16.2
35. New Jersey	12.6	35. Minnesota	141.9	35. Montana	14.1
36. Nebraska	11.2	36. Massachusetts	115.8	36. Nebraska	13.1
37. Rhode Island	9.6	37. Rhode Island	91.8	37. Connecticut	12.5
38. South Dakota	9.6	Maine	*	38. Rhode Island	10.6
39. Connecticut	9.0	Montana	*	39. Massachusetts	10.3
40. Massachusetts	9.0	Nevada	*	40. South Dakota	9.6
41. Minnesota	8.6	New Hampshire	*	41. Minnesota	9.1
42. Utah	7.3	North Dakota	*	42. Utah	7.3
43. North Dakota	6.9	South Dakota	*	43. Wisconsin	7.0
44. New Hampshire	6.6	Utah	*	44. North Dakota	6.9
45. Wisconsin	6.4	Wyoming	*	45. New Hampshire	6.6
U. S. Census Division:		U. S. Census Division:		U. S. Census Division:	
1. West South Central	45.4	1. West South Central	307.1	1. East South Central	109.5
2. South Atlantic	36.8	2. South Atlantic	296.1	2. South Atlantic	102.9
3. East South Central	34.6	3. East South Central	277.2	3. West South Central	91.9
4. Mountain	26.4	4. Mountain	270.8	4. Mountain	28.9
5. Pacific	24.7	5. West North Central	222.3	5. Pacific	27.8
6. East North Central	19.7	6. Pacific	210.6	6. East North Central	27.1
7. West North Central	17.1	7. East North Central	204.6	7. Middle Atlantic	23.4
8. Middle Atlantic	15.2	8. Middle Atlantic	194.2	8. West North Central	22.2
9. New England	10.7	9. New England	146.2	9. New England	12.2
Region:		Region:		Region:	
1. 15 Southern states and District of Columbia	39.5	1. 15 Southern states and District of Columbia	294.0	1. 15 Southern states and District of Columbia	100.5
2. 29 Northern states	17.9	2. 29 Northern states	201.4	2. 29 Northern states	24.0
Total:		Total:		Total:	
44 states and the District of Columbia	23.5	44 states and the District of Columbia	272.0	44 states and the District of Columbia	47.7

* Number tested insufficient for computation of rate.

2. Parran, Thomas and others: Serodiagnostic Tests for Syphilis in State Laboratories: The 1941 Evaluation of Their Performance, J. A. M. A. **117**: 1167 (Oct. 4) 1941.

to 304.8. In this case too few rural Negroes were examined to provide corrected rates for the group.

The direction of the biases introduced by race and residence was less constant than were those resulting from age. In some states, particularly those with large Negro populations, proportionately more colored than white persons were tested; elsewhere the reverse was true. Similar variations with regard to urban and rural residence existed. The total effect of these variations was to increase the rates, mainly by inclusion of an undue proportion of Negroes, thus counterbalancing to some extent the lowering of the rates by the age distribution.

This is demonstrated in some states where certain corrected rates were appreciably lower than the observed rates. These include Florida (total rate), Georgia (total rate), Louisiana (urban rate), Maryland (rural rate) and Mississippi (urban rate). In each case in which correction resulted in reduction there was a smaller proportion of Negroes among the state population than among the individuals examined.

For the three factors age, race and residence the rates can be corrected to represent the prevalence of syphilis with reasonable accuracy as far as it is reflected in the occurrence of positive and doubtful serologic reactions and suggestive early lesions. That other less tangible factors of selection exist in the sample cannot be denied. A few that come most readily to mind are marital status, permanence of residence in a community and economic status. These cannot be identified with assurance, much less evaluated or corrected; and it must suffice that their existence is suspected but their effect unknown.

CALCULATION OF THE RATES

The methods of calculating the rates and of making the corrections were sufficiently simple and straightforward. The number of men examined and the number in whom evidence of syphilis was found were tabulated according to residence (rural or urban), race (white or Negro) and age. From these two sets of figures, specific rates of prevalence were calculated. These rates were then weighted by the state populations in corresponding age, race and residence groups. The populations used for weighting were obtained from the 1940 census reports. The census tabulations, however, set up the age limits as 20-24, 25-29, 30-34, whereas the selectee tabulations had the age limits 21-25, 26-30, 31-35. Consequently it was necessary to interpolate. This was done by means of the La Grange formula applied to the cumulative population curves. Nine fixed points were used for this purpose (a polynomial of the eighth degree).

In some states the number of Negroes tested (urban, rural or both) was so small that no rates could be calculated. In all such cases the entire group was omitted from both numerator and denominator of subsequent calculations. In other instances race-residence groups contained so few individuals that only one or two of the age specific rates could be calculated. When this occurred the missing rate (or rates) was estimated on the basis of known rates for the other age groups.

The age specific rates were multiplied by the corresponding state populations to get the estimated total number of persons in each age-race-residence group showing some evidence of syphilis. When this estimated number of infected persons is divided by the state population of the group, the result is the rate corrected for age. The total estimated number of infected persons for the state in each race and residence group divided by the total populations of these groups gave the corrected rates for the state by race and resi-

TABLE 2.—*Syphilis Among 1,895,778 Selectees and Volunteers by Age Group, Race and Residence: Number Tested, Number in Whom Evidence of Syphilis was Detected and Prevalence Rate per Thousand Tested*

Age Group	Urban			Rural			Total		
	Number Tested	Syphilis Detected	Rate per 1,000	Number Tested	Syphilis Detected	Rate per 1,000	Number Tested	Syphilis Detected	Rate per 1,000
White									
21-25	594,054	5,887	9.9	350,306	3,678	10.5	944,360	9,565	10.1
26-30	309,934	6,530	21.1	162,625	3,328	20.5	472,559	9,858	20.9
31-35	172,128	6,758	39.3	81,472	2,814	34.5	253,600	9,572	37.7
Total	1,076,116	19,175	17.8	594,403	9,820	16.5	1,670,519	28,995	17.4
Negro									
21-25	63,990	13,062	204.1	53,011	9,313	175.7	117,001	22,375	191.2
26-30	42,699	12,944	303.1	23,459	6,488	276.6	66,158	19,432	293.7
31-35	29,862	10,766	360.5	12,238	4,271	349.0	42,100	15,037	357.2
Total	136,551	36,772	269.3	88,708	20,072	226.3	225,259	56,844	252.3
Total									
21-25	658,044	18,949	28.8	403,317	12,991	32.2	1,061,361	31,940	30.1
26-30	352,633	19,474	55.2	186,084	9,816	52.8	538,717	29,290	54.4
31-35	201,990	17,524	86.8	93,710	7,085	75.6	295,700	24,609	83.2
Total	1,212,667	55,947	46.1	683,111	29,892	43.8	1,895,778	85,839	45.3

TABLE 3.—*Syphilis Rates per Thousand Males Aged 21-35 in the United States Based on 1,895,778 Selectee Serologic Reports by State, Race and Urban or Rural Residence*

State	Urban			Rural			Total
	White	Negro	Total	White	Negro	Total	
Alabama	41.5	298.2	130.6	21.9	186.7	72.9	92.3
Arizona	55.0	304.6	67.3	45.1	289.8	56.1	60.4
Arkansas	44.7	358.2	116.8	25.3	301.2	92.8	98.6
California	27.2	212.8	31.6	26.5	209.1	28.4	30.7
Colorado	23.2	201.3	26.3	17.0	†	17.0	21.9
Connecticut	9.0	200.5	12.9	9.1	232.8	11.7	12.5
Delaware	17.2	264.2	48.5	27.2	215.0	54.9	51.5
District of Columbia	23.8	272.9	92.7	....	.....	....	92.7
Florida	52.8	413.3	163.1	53.8	395.8	152.8	158.6
Georgia	55.3	407.3	172.3	29.4	278.6	109.8	133.2
Idaho	*	*	*	*	*	*	*
Illinois	22.2	212.6	33.1	17.8	200.1	21.0	30.0
Indiana	35.4	266.2	48.4	22.6	281.3	24.1	38.3
Iowa	22.5	182.1	24.7	10.9	†	10.9	16.8
Kansas	30.0	253.8	43.0	13.5	82.3	14.5	26.9
Kentucky	*	*	*	*	*	*	*
Louisiana	45.3	317.9	127.0	31.6	242.9	108.4	116.5
Maine	23.8	*	23.8	29.0	†	29.0	26.9
Maryland	30.0	339.0	82.6	25.9	300.2	68.9	77.3
Massachusetts	9.1	122.2	10.5	8.2	62.9	8.9	10.3
Michigan	17.6	185.4	27.3	13.8	150.4	15.3	23.5
Minnesota	12.0	141.9	12.9	5.3	†	5.3	9.1
Mississippi	48.8	431.1	199.7	30.3	296.4	163.2	171.5
Missouri	34.9	240.2	54.0	21.2	199.5	26.6	41.6
Montana	19.6	†	19.6	10.7	†	10.7	14.1
Nebraska	17.2	204.4	21.7	7.3	†	7.3	13.1
Nevada	38.4	†	38.4	28.3	†	28.3	32.1
New Hampshire	8.5	†	8.5	3.8	†	3.8	6.6
New Jersey	12.6	194.9	22.2	12.9	183.2	21.2	22.0
New Mexico	71.3	304.8	76.7	43.5	†	43.5	56.5
New York	14.4	196.2	23.5	16.1	214.3	19.6	22.8
North Carolina	34.2	323.6	119.0	26.1	194.0	69.4	84.6
North Dakota	13.8	†	13.8	5.1	†	5.1	6.9
Ohio	22.6	199.8	33.6	20.5	121.7	22.2	30.1
Oklahoma	47.6	309.5	70.2	34.0	198.9	43.8	54.7
Oregon	*	*	*	*	*	*	*
Pennsylvania	16.7	192.1	27.0	17.6	178.3	20.1	24.7
Rhode Island	9.9	91.8	10.9	6.1	†	6.1	10.6
South Carolina	51.8	417.2	181.6	44.8	256.5	131.3	145.5
South Dakota	13.4	†	13.4	8.2	†	8.2	9.6
Tennessee	58.4	313.2	125.8	29.6	228.9	53.3	81.1
Texas	67.2	384.2	112.0	40.5	303.3	76.1	93.4
Utah	9.4	†	9.4	4.5	†	4.5	7.3
Vermont	*	*	*	*	*	*	*
Virginia	36.7	307.4	98.2	27.3	207.9	69.7	80.8
Washington	19.4	174.6	20.5	11.4	†	11.4	16.2
West Virginia	59.3	257.6	71.4	41.5	192.4	51.0	57.2
Wisconsin	7.3	157.0	8.3	5.4	†	5.4	7.9
Wyoming	29.7	†	29.7	23.7	†	23.7	25.8
44 states and District of Columbia	24.1	290.2	46.5	22.6	252.8	49.4	47.7

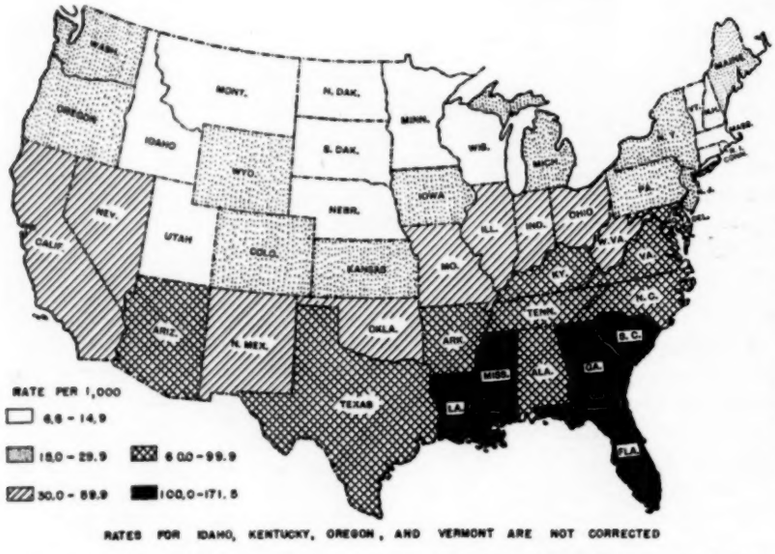
* Data not available. See text.
† Number tested insufficient for computation of rate.

dence. The same process applied to the total number of syphilitic men and the total populations in the forty-four reporting states and the District of Columbia gave the corrected national rates by race and residence.

HOW MUCH SYPHILIS?

Now, how much syphilis is there among white and Negro men in the United States between the ages of 21 and 35? The corrected rate of prevalence is 47.7 per thousand (table 1). Among the men actually examined and without any correction the rate is 45.3 per thousand (table 2). The highest rate of prevalence is among Negroes, the corrected rates for the entire country being 272.0 per thousand for Negroes and 23.5 per thousand for white men (table 1).

Among both white men and Negroes the rates rise sharply with increasing age. Table 2 shows observed white and Negro rates for the three age groups in both urban and rural areas. Among the white urban dwellers the rate of prevalence is almost four times as high in the age group 31-35 as in the age group 21-25. Among Negro urban dwellers the rate among the oldest men is about twice the rate among the youngest men. This, of course, does not mean that the older men are exposed to syphilis twice or four times as fast as the younger men but rather that there is a constantly accumulating backlog of uncured syphilis. This is due in part to the fact that too much syphilis never is brought to treatment and in part to the fact that too many syphilitic patients are not held through an adequate treatment course.



Rates per thousand for two million selectees blood tested for syphilis, corrected for age, race and residence within each state; reports received November 1940 through August 1941.

WHERE IS IT?

Of greatest practical value to those operating the control machinery is the distribution of syphilis. Where is it? The rates by state and region given in table 1 are most effectively illustrated on the map showing total rates of syphilis in each state. It will be seen that the highest rates are in Mississippi, Florida, South Carolina, Georgia and Louisiana. When white and Negro populations are considered separately the same states generally show the highest prevalence rates for both groups. The rate of prevalence among white men, for instance, is highest in New Mexico, Texas, Florida, Arizona, South Carolina and West Virginia. Among Negroes the rate is highest in Florida, Texas, Georgia, Maryland, Mississippi, Arkansas and New Mexico.

In the states having Negro populations of any significant size the Negro rates are many times higher than the rates for white men. And high Negro rates in general tend to be associated with high white rates. This relationship, however, is not a constant proportion. Indeed, in those localities where the Negro rates are highest the white rates are relatively much higher than in areas where the Negro rates are low. Thus the high Florida Negro rate is only 7.6 times Florida's white rate; but the relatively low Negro rate in Massachusetts in 12.8 times the white rate. The tendency applies as well to large areas as to individual states. Table 1 shows that in the three census divisions having the highest prevalence of syphilis the Negro rates are less than ten times the white rates, whereas in the four divisions with the lowest prevalence the Negro rates are more than ten times the white rates.

On the whole the highest rates are found in the Southern and agricultural states, the lowest in the Northern and industrial states. As groups, the New England states show the lowest rates, the East-South Central the highest.

It has long been suspected that prevalence rates of syphilis were much higher in urban than in rural areas. The selectee data indicate that this supposition is only partially true (table 3). Both white and Negro rates for the country as a whole are higher in urban than in rural areas; but the total corrected rates in rural areas are 49.4 per thousand as compared with 46.5 for urban areas. This may be explained by the fact that in the combined white and Negro total for all states there is a preponderance of Negroes in the rural areas. Thus, combined white and Negro rates are higher in rural areas, whereas white and Negro rates separately are higher in urban areas.

SUMMARY

1. The study is based on the serologic blood test reports received through Aug. 31, 1941 of 1,895,778 white and Negro men between the ages of 21 and 35 tested under the provisions of the Selective Training and Service Act of 1940.

2. The rate of prevalence based on positive and doubtful blood tests among the selectees examined is 45.3 per thousand. The rate of prevalence for the entire male population of the United States between the ages of 21 and 35 is estimated to be 47.7 per thousand.

3. The rate of prevalence among Negro selectees is 252.3 per thousand, among white selectees 17.4 per thousand. The estimated rate of prevalence for the entire male Negro population aged 21 to 35 is 272 per thousand, for the entire male white population 23.5 per thousand.

4. The rate of prevalence among selectees from rural areas is 43.8 per thousand, from urban areas 46.1 per thousand. The estimated rate of prevalence among the entire male population aged 21-35 in rural areas is 49.4 per thousand, in urban areas 46.5 per thousand.

5. Highest prevalence rates (white and Negro) are found in the Southeastern states, the lowest in the New England, West North Central and Middle Atlantic states.

CONGENITAL AND ACQUIRED SYPHILIS IN INFANTS AND CHILDREN

TREATMENT WITH MASSIVE DOSES OF ARSENIC INTRAVENOUSLY

I. MICHAEL LEVIN, M.D.
SAMUEL J. HOFFMAN, M.D.
DAVID S. KORANSKY, M.D.
IRVING B. RICHTER, M.D.
AND
BERNARD GUMBINER, M.D.
CHICAGO

The favorable implications of massive dose arsenotherapy of early syphilis in adults by the intravenous drip method focused our attention on the possibility of employing such a method in the treatment of congenital and acquired syphilis in infants and children.

The following report is presented to record the results of treatment of 36 infants and children, 32 of whom had congenital syphilis and 4 acquired syphilis, the study extending from August 1940 to the present date. We have attempted to evaluate the efficacy, optimal dosage, technic and toxicologic effects of five day intravenous drip mapharsen therapy.

The spirochetosis of congenital syphilis with its widespread changes presents a far more complex problem than the early syphilis of adults. The nutritional and developmental status of the infant has been profoundly altered; growth and metabolism are retarded. Neonatal syphilis calls for, first, exacting pediatric care to save life and, second, antisyphilitic treatment.

PLAN OF STUDY

The status of the serologic reaction of the blood and of the liver, kidneys, bones and hemopoietic system was studied immediately before, during and after treatment. Preliminary laboratory studies included roentgenograms of the long bones, the standard and quantitative Kahn tests, the Kolmer complement fixation test, complete blood counts including a platelet count, urinalyses including a determination of urobilinogen excretion, and blood chemistry determinations including those of the nonprotein nitrogen, total serum protein, serum albumin and globulin, icteric index, calcium, phosphorus and ascorbic acid. During treatment blood counts and urinalyses were done.

On the day after the completion of the mapharsen venoclysis all laboratory determinations performed before treatment were repeated. During the remainder of the child's stay in the hospital quantitative Kahn tests were performed weekly and urinalyses, blood counts and blood chemistry determinations as indicated. Following discharge from the hospital all patients returned monthly to our outpatient clinic for further serologic study, clinical observation and infant and child welfare guidance. Roentgen studies were repeated every three months.

Read before the Section on Pediatrics at the Ninety-Third Annual Session of the American Medical Association, Atlantic City, N. J., June 11, 1942.

The Chicago Board of Health, with Dr. Herman N. Bundesen as president, assisted in the infant and child welfare. Dr. Ida Kraus Ragens made the blood chemistry determinations, and the Cook County School of Nursing made the social service investigations.

From the Children's Division of the Cook County Hospital, the Cook County Graduate School of Medicine, the Department of Pediatrics of the University of Illinois College of Medicine and the Department of Public Health of the State of Illinois, Dr. Roland R. Cross, director; Dr. Herman M. Soloway, V.D., control officer, and Dr. Howard Shaughnessy, director of laboratories.

TREATMENT

Preparatory.—Before we proceeded with the institution of intravenous arsenotherapy the physical and nutritional status of the infant or child was carefully studied. Extremely debilitated infants observed in the neonatal period and those seen in the first half year of life with evident syphilis of the skin, viscera or bones were never placed on specific therapy until their ability to take food and maintain themselves was proved. During this period they were given a preliminary course of mercurial inunctions (1 Gm. of 10 per cent ointment) three times a week for a period of two or more weeks, until they gave satisfactory evidence of a favorable response as shown by a gain in weight and improved clinical appearance. Infants with severe anemia were given citrated blood transfusions from our blood bank in the amount of 10 cc. per pound of body weight. There was no restriction of diet during treatment.

Dosage.—Our approach to the problem was with caution because our previous experience with the precarious physical condition of syphilitic infants had taught us that unexpected fatal response to arsenical therapy can occur. Although the Eastern investigators [1] did not vary the dosage of the drug according to the weight of the patient, we assumed a standard of a 150 pound (68 Kg.) adult receiving a daily total of 240 mg. of mapharsen, or 1.6 mg. per pound of body weight a day. This dosage we employed in our early cases (11 patients).

The absence of severe toxic reactions and our failure to obtain rapid serologic reversals prompted us to increase the daily dose per pound of body weight to 2 mg. (9 patients), 2.5 mg. (17 patients) and 3 mg. (3 patients). The total dose for five days was calculated and divided according to the following plan: On the first day of treatment 10 per cent of the total calculated dose was administered; on the second day 15 per cent of the total dose, and on the third, fourth and fifth days 25 per cent of the total dose. Graded dosage was used for the detection of possible toxic reactions.

Five per cent dextrose was selected as the diluent because the added carbohydrate was a source of food and glycogen storage for protection of the liver. The amount of solution used in infants was 30 to 60 cc. per pound of body weight a day, regulated to flow for a period of ten hours. For infants the amount of solution averaged between 300 cc. and 600 cc. a day; for older children a maximum of 1,000 cc. was used.

Technic.—In infants the site of election for venoclysis was the internal malleolar vein exposed by cutdown. A cannula, gage 18 or 20, was tied into the vein to allow proximal flow. At the end of each day's treatment the vacoliter type tube was disconnected, an obturator inserted into the cannula and a sterile dressing applied. Obstruction to renewed venoclysis on succeeding days was encountered infrequently, whereupon a fresh cut-down was carried out on the opposite extremity. In older children needles of a similar gage were inserted for proximal flow into the veins of the forearm, usually on the anterior or outer aspect, between the elbow and the wrist if pos-

1. Chargin, Louis; Leifer, William, and Hyman, H. T.: The Application of the Intravenous Drip Method to Chemotherapy as Illustrated by Massive Doses of Arsphenamine in the Treatment of Early Syphilis, J. A. M. A. **104**: 878 (March 16) 1935; Massive Dose Arsenotherapy of Syphilis by the Intravenous Drip Method, Am. J. M. Sc. **197**: 480 (April) 1939.

sible. Otherwise the cubital veins were used and alternate arms on succeeding days.

Types of Cases.—Our material consisted of two groups of cases: (1) 32 children with congenital syphilis, 18 of whom were under 6 months of age, and 14 between the ages of 6 months and 6 years; (2) 4 children with acquired syphilis in the primary or secondary stages. There were 17 white children (11 boys and 6 girls) and 19 Negroes (11 boys and 8 girls). Three patients were accepted for treatment who had previously received inadequate acetarsone therapy. We would have preferred to treat only patients with congenital syphilis under 6 months of age.

At the beginning of this study we were concerned first with the development of a satisfactory technic for prolonged venoclysis and second with the determination of the toxic reactions of massive intravenous arsenical therapy. Hence we accepted a variety of patients in order to familiarize ourselves with the drug and the technic.

reversal was obtained in 6, or 50 per cent (table 2). This was in sharp contrast with the 100 per cent serologic reversal in the group with acquired syphilis.

In the group of 7 children between 4 and 7 months of age there was 1 serologic reversal (table 3). However, in 2 others there was a decreasing titer of the quantitative Kahn test to doubtful, which may be of significance. Four of these infants were given a second course of treatment because of a rising titer at the end of six months. They show falling titers, distinctly lower than after the first course of treatment.

Of the remaining 13 children, ranging in age from 1 to 6 years, there was serologic reversal in 5 and a decreasing titer of the quantitative Kahn test in 8 (table 4).

Toxic Manifestations.—Toxic reactions of a minor degree were frequent. However, it was not necessary to discontinue treatment in any instance.

TABLE 1.—*Quantitative Serologic Reaction of Patients with Acquired Syphilis*

Case	Age	Kahn Units Before Treatment	Kahn Units After Treatment													Months Until Negative	Duration Negative	Spinal Fluid Negative, Mos.
			1 Wk.	1 Mo.	2 Mos.	3 Mos.	4 Mos.	5 Mos.	6 Mos.	8 Mos.	10 Mos.	12 Mos.	14 Mos.	16 Mos.	18 Mos.	22 Mos.			
1. R. J.	19 mos.	160	320	40	4	4	4	0	3	0	0	0	0	0	0	0	8	14	14
2. A. R.	12 yrs.	40	40	4	4	..	40	0	0	0	0	0	0	0	0	0	5	13	7
3. G. P.	12 yrs.	160	160	40	4	2	0	0	0	0	0	0	0	..	..	..	4	10	12
4. J. M.	13 yrs.	320	160	20	4	4	0	0	0	0	0	0	0	0	0	0	4	18	8

Total number with serologic reversal, 4.

TABLE 2.—*Quantitative Serologic Reaction of Infants with Congenital Syphilis*

Case	Age	Kahn Units Before Treatment	Kahn Units After Treatment											Months Since Last Seen
			1 Week	1 Mo.	2 Mos.	3 Mos.	4 Mos.	5 Mos.	6 Mos.	8 Mos.	10 Mos.	12 Mos.	14 Mos.	16 Mos.	
5. S. A. R.	1 mo.	600	320	320	80	40	..	3	..	..	0	0	..	..	7
6. R.	1 mo.	4	4	0	0	..	0	..	..	..	..	..	..	..	..
7. B.	1½ mos.	80	320	40	20	..	..	..	..	..	..	..	..	..	7
8. R. R.	2 mos.	160	160	0	0	0	0	0	..	0	0	..	0	..	..
9. C. H.	2 mos.	320	320	4	..	..	..	..	..	..	80	..	320	..	..
10. M. J.	2 mos.	320	160	80	..	..	..	..	..	..	..	..	..	..	8
11. A. B.	2 mos.	320	320	320	80	..	..	0	0	0	..	..	..	..	..
12. P. C.	2½ mos.	200	160	20	4	0	4	..	..	..	..	..	..	..	17
13. L. W.	2½ mos.	880	160	40	80	..	640	720	320	480	920	..	..	..	..
14. W. K.	3 mos.	40	4	3	..	..	..	..	..	..	0	..	..	..	..
15. L. B.	3 mos.	320	720	320	20	..	0	0	..	0	..	..	..	..	..
16. J. W.	3½ mos.	160	200	320	..	..	..	..	..	..	..	..	..	..	8

Total number with serologic reversal, 6.

RESULTS

Clinical and Serologic.—The 4 children with acquired syphilis, 1 with chancre of the lip and secondary lesions and the other 3 with anal condylomas and mucous patches, showed a prompt disappearance of spirochetes within forty-eight hours and a clearing of lesions five to seven days after treatment. Serologic reversal was obtained in all 4 cases (table 1), 2 in four months, 1 in five months and 1 in eight months. This has persisted to the present time, from ten to eighteen months after the reaction became negative; spinal fluid examinations in all 4 cases showed no abnormalities. In the absence of clinical and serologic evidence of syphilis we are classifying these as presumptive cures, a result which we anticipated from statistics given on adults treated early.

The remaining 32 patients all had congenital syphilis and, as was expected, response to treatment was variable and not nearly as dramatic as in the group of children with early acquired infection. Decided improvement in general appearance and uniform weight gains were evident within one month after the onset of treatment of the infants with congenital syphilis. Of the 12 babies under 3 months of age serologic

Fever occurred in 29 of 40 treated patients. The temperature rose almost invariably toward the end of the day's treatment, persisted for four to eight hours and was always normal the following morning. In 10 cases the fever was first noted on the first day, in 5 on the second, in 6 on the third, in 4 on the fourth and in 4 on the fifth day. The elevation was observed during one day in 7 instances, during two days in 12, during three days in 4, during four days in 3 and during five days in 2. Mild pyrexia was present in 3 children for one to three days following cessation of treatment.

Toxicoderma appeared in 5 instances, urticaria in 2 and erythema in 3. The eruptions usually occurred on the first day of treatment and disappeared within two days. There was an associated mild elevation of temperature. Neither secondary toxicoderma nor exfoliative dermatitis was observed.

Vomiting was present in 8 of the 40 cases under treatment and abdominal distention in 3.

Irritability was noted in 5 children, headache in 2 and listlessness in 1.

Localized phlebitis was recorded in 7 instances with local abscess formation in 1.

Laboratory Studies.—There was no significant alteration in the red count, white count or hemoglobin level. No instance of anemia, granulocytopenia or thrombopenia of sufficient severity to interrupt treatment was observed, nor were there any striking changes noted in the period following treatment.

Variation in the icteric index levels was negligible. There was no evidence of clinically recognizable jaundice.

Blood chemistry studies of nonprotein nitrogen, total protein, serum albumin and globulin, calcium and phosphorus revealed only insignificant changes.

Blood ascorbic acid levels were studied in 28 cases before and after treatment. In 21, the values were subnormal preceding therapy, further depression occurring in 17 following treatment.

TABLE 3.—*Quantitative Serologic Reaction of Infants with Congenital Syphilis*

Case	Age	Kahn Units Before Treatment	Kahn Units After Treatment: 1 Week	1 Mo.	2 Mos.	3 Mos.	4 Mos.	5 Mos.	6 Mos.	8 Mos.	10 Mos.	12 Mos.	14 Mos.	16 Mos.	Months Since Last Seen
17. F. B.	5 mos.	560	480	...	20	20	80	320	320	..	..	..	..	..	..
	13 mos.	320	320	160	..	..	3	..	..	..	..	..	..	..	4
18. J. R.	4 mos.	880	320	20	..	..	400	..	400	..	..	..	..	..	..
	11 mos.	400	320	80	40	..	..	..	..	..	..	..	..	..	..
19. G. M.	5 mos.	320	320	160	20	4	160	..	320	320	320	..	..	..	..
	16 mos.	80	80	320	80	..	4	..	..	..	..	..	..	..	..
20. G. S.	4 mos.	320	320	320	..	20	..	..	..	..	..	0	..	..	..
21. P. M.	4 mos.	920	720	720	400	320	..	160	320	80	320	320	..	..	..
	15 mos.	320	160	80	..	..	..	..	..	..	..	..	..	..	..
22. D. P.	7 mos.	320	720	320	..	..	..	..	..	3	0	..	..	..	8
23. M. J.	4 mos.	3,200	420	80	40	80	720	2,000	320	160	80	480	..	..	..

Total number with serologic reversal, 1

TABLE 4.—*Quantitative Serologic Reaction of Infants and Children with Congenital Syphilis*

Case	Age	Kahn Units Before Treatment	Kahn Units After Treatment: 1 Week	1 Mo.	2 Mos.	3 Mos.	4 Mos.	5 Mos.	6 Mos.	8 Mos.	10 Mos.	12 Mos.	14 Mos.	16 Mos.	Months Since Last Seen
24. F. J.	14 mos.	40	80	..	20	20	20	..	..	..	..	..	..	..	17
25. J. P.	15 mos.	320	320	20	..	..	..	..	80	20	4	4	4	..	..
26. J. M.	18 mos.	360	0	40	..	..	..	..	0	..	..	..	0	0	..
27. C. T.	12 mos.	320	320	160	..	..	..	..	20	4	3	0	..	0	..
28. E. A.	22 mos.	320	160	400	320	..	..	80	..	..	..	..	..	..	5
29. E. J.	28 mos.	4	0	4	..	3	0	..	..	..	..	..	..	..	17
30. R. T.	24 mos.	320	320	320	..	..	..	..	40	40	20	0	3	..	..
31. D. M.	29 mos.	160	20	20	4	20	40	80	4	4	4	4	3	..	..
32. M. T.	30 mos.	160	..	80	..	4	..	..	..	..	..	..	..	..	..
33. G. D.	5 yrs.	160	80	80	..	..	..	..	..	4	4	3	0	0	..
34. M. D.	4 yrs.	320	80	..	..	..	..	..	..	40	40	20	0	4	..
35. L. M.	6 yrs.	20	4	..	..	4	20	..	4	0	4	..	0	..	..
36. M. M.	5 yrs.	320	320	320	..	..	..	..	160	80	20	..	..	..	..

Total number with serologic reversal, 5.

Daily urinalyses during treatment revealed no evidence of kidney damage, and subsequent examinations corroborated this.

There was no significant alteration in the urobilinogen excretion in the urine as a result of treatment.

Roentgenograms revealed in general definite evidence of bone healing following arsenotherapy. Further analysis of the roentgen studies, including the possible correlation with blood calcium, phosphorus, phosphatase and ascorbic acid determinations, as well as the serologic reaction, will be published at a future date.

SUMMARY AND CONCLUSIONS

A series of 32 infants and children with congenital syphilis and 4 children with early acquired syphilis were treated for five days by massive dosage of mapharsen intravenously.

The spirochetosis of congenital syphilis produces widespread changes more resistant to treatment than acquired syphilis.

Pediatric care must be exacting and the patients must demonstrate their ability to take food and maintain themselves before being subjected to massive intravenous arsenotherapy.

Careful laboratory and roentgen studies before, during and after treatment were carried out. Varying dosages of mapharsen were employed.

There were no serious toxic reactions and there was no mortality.

The 4 patients with acquired syphilis showed serologic reversal within four to eight months, negativity persisting for ten to eighteen months thus far.

Of the 32 patients with congenital syphilis (12 under 3½ months of age), 12 showed serologic reversal, a presumptive favorable result in 37.5 per cent.

We believe that a rising titer of the quantitative Kahn test six months after treatment probably indicates failure and that a second course of therapy should be given.

The work to date is very encouraging, but further study is necessary before the method should be recommended for general use.

5612 West Madison Street.

ABSTRACT OF DISCUSSION

DR. SAMUEL J. HOFFMAN, Chicago: I believe you will agree that the problem of treating congenital syphilis is entirely different from that of adult syphilis, possibly because of the uncertain line of demarcation of stages in the former. In congenital syphilis it frequently takes weeks and months before a definite diagnosis is established. During this period valuable time is lost while the disease progresses. It is my hope that we may learn to diagnose congenital syphilis much earlier than we are doing today. The plan is to study placentas, cords, roentgenograms of the bones and the serologic reaction of mother and infant. A comparison of the titer of mother and infant by the quantitative Kahn method is of much value. If the mother has 60 Kahn units and the infant 300, we feel that this is more than presumptive evidence that the infant has congenital syphilis; a higher titer in the infant is diagnostic and may be demonstrable before x-ray studies or enlargement of

the abdominal viscera occurs, thus making possible early specific treatment.

DR. I. MICHAEL LEVIN, Chicago: The method is not one that the general practitioner or pediatrician can advise to his patient at present. Recognition and thanks are due to many agencies of the state and local health departments, as well as the nursing, social service, laboratory and intern personnel of the Cook County Hospital, who made possible this presentation.

MENINGOENCEPHALITIS IN MAN CAUSED BY THE VIRUS OF LYMPHOGRANULOMA VENEREUM

ALBERT B. SABIN, M.D.
AND
CHARLES D. ARING, M.D.
CINCINNATI

Our purpose in this communication is to present data establishing the virus of lymphogranuloma venereum as a cause of severe meningoencephalitis in man. The capacity of the causative agent of venereal lymphogranuloma (lymphogranuloma inguinale, lymphopathia venerea, Nicolas-Favre disease, climatic bubo, fourth venereal disease) to produce meningoencephalitis after intracerebral inoculation in susceptible experimental animals has been known since the virus was first isolated and identified in 1930.[1] However, even in experimental animals meningoencephalitis was not known to occur after inoculation of the virus by peripheral routes without simultaneous trauma to the brain.[2] Signs and symptoms suggestive of involvement of the nervous system during the course of lymphogranuloma venereum in man have been recorded by many observers.[3] Von Haam and D'Aunoy[4] isolated from the cerebrospinal fluid of 2 out of 8 patients with lymphogranuloma venereum viruses which produced meningoencephalitis in mice. These viruses were identified as lymphogranuloma venereum only by the fact that suspensions of the affected mouse brains gave positive cutaneous reactions in patients having this disease. However, there was no clinical evidence of meningoencephalitis in these patients, and their cerebrospinal fluids were cytologically and chemically normal.[5]

In the present study the syndrome presented by the patient was predominantly that of meningoencephalitis. Syphilis, tuberculosis and lymphocytic choriomeningitis were at first considered in the differential etiologic diagnosis. Although enlargement of the inguinal lymph nodes was present, it was of such a character that it was not regarded as suggestive of lymphogranuloma venereum even by dermatologists with experience in this disease. However, the virus of lymphogranuloma venereum, identified by the type of pathogenicity in experimental animals and by cross immunity tests, was isolated on two occasions from the cerebrospinal fluid, from an inguinal lymph node and from seemingly insignificant lesions on the penis.

REPORT OF CASE

HISTORY AND CLINICAL COURSE

J. B., a Negro aged 25, admitted to the Cincinnati General Hospital Jan. 14, 1942, was acutely ill with a temperature of 105 F. and extreme rigidity of the neck. He was confused and irrational. The antecedent history was obtained from an uncle and subsequently from the patient. He was born and lived in Alabama, but in the past four months he had been shuttling back and forth between Alabama and Cincinnati. He had always been in excellent health but thought that he had had gonorrhea at one time, and "years" ago he had been told that he had "bad blood," for which he was given intravenous injections. Early in June 1941 he noticed the development of verrucous lesions around the corona of the penis. Dr. Otis F. Gay, health officer of Butler County, Ala., supplied the following record for this period: "This boy was examined by the local physician for the draft board and was found to have some warts on [around?] the glans penis. These warts had the general characteristics of verruca vulgaris and repeated Wassermann tests were negative, nor could gonorrhea be detected. At this time there were no open lesions nor regional glandular enlargement. He was admitted to our venereal disease clinic in the hope that a few doses of neoarsphenamine might prove of benefit as is sometimes the case with the common wart. He received approximately twelve injections of 0.6 [Gm.] each at weekly intervals without any apparent benefit."

In mid-December some of the warts began to drop off, leaving behind tender ulcerated areas, and he recalled having had sexual intercourse about December 11 and 25. He was not aware of any inguinal adenopathy. About this time, in the middle of December, a headache and cough developed, both of which persisted until admission to the hospital. At the onset, the headache was mild and generalized, although two days later he was troubled with dizziness and vomiting. Despite the headache, which continued to increase in severity, the dizziness and the vomiting, which recurred every two to three days, he continued to be up and about until Jan. 13, 1942. On that day he was too ill to arise in the morning, and in the evening in addition to his complaint of very severe headache, periods of irrational behavior and "fever" were observed.

On admission to the hospital January 14 he was acutely ill, irrational, confused and difficult to manage. He presented extreme rigidity of the neck, and attempts at passive flexion of the neck brought forth obvious complaints of pain. The Kernig sign was elicited bilaterally and all the reflexes were hypoactive. On the penis just proximal to the corona there were a number of raw, shallow, somewhat tender ulcers that bled easily, and one wart. In both inguinal regions there were several enlarged lymph nodes which were not larger than 1.5 cm. in diameter, discrete, moderately firm but apparently not tender. The cerebrospinal fluid was cloudy and xanthochromic and contained 4,000 white cells, 25 per cent of which were polymorphonuclear leukocytes, 675 red cells per cubic millimeter, and a greatly increased amount of protein. The clinical diagnosis was meningoencephalitis.

He was febrile for about seven days with a pulse rate varying from 85 to 110; the blood pressure was 120 systolic and 70 diastolic. Beginning January 21 his temperature was normal but his neurologic condition remained quite severe. He was somewhat more alert, but the rigidity of the neck and the positive Kernig sign remained. All voluntary movements were tremulous, the tremor being particularly noticeable in the lips, the tongue and all extremities. Periods of confusion were a prominent feature of the disease up until February 3. He talked with illusory people and reached for illusory objects.

From the Children's Hospital Research Foundation and the Departments of Pediatrics and Internal Medicine (Neurology) of the University of Cincinnati College of Medicine.

1. Hellerström, S., and Wassén, E.: Meningo-enzephalitische Veränderungen bei Affen nach intracerebraler Impfung mit Lymphogranuloma inguinale, Proc. 8th Internat. Congr. Dermat. & Syph., 1930, p. 1147. Levaditi, Constantin; Ravaut, P., and Schoen, R.: Réceptivité de la souris à l'égard du virus de la maladie de Nicolas et Favre, Compt. rend. Soc. de biol. **109:** 285 (Feb. 5) 1932. Findlay.[2]

2. Findlay, G. M.: The Relationship of Climatic Bubo and Lymphogranuloma Inguinale, Lancet **2:** 11 (July 2) 1932; Experiments on the Transmission of the Virus of Climatic Bubo (Lymphogranuloma Inguinale) to Animals, Tr. Roy. Soc. Trop. Med. & Hyg. **27:** 35 (June) 1933. D'Aunoy, Rigney, and von Haam, Emmerich: Venereal Lymphogranuloma, Arch. Path. **27:** 1032 (June) 1939.

3. Lévy-Valensi, J., and de Séze, S.: Sur les complications nerveuses au cours de la maladie de Nicolas-Favre, Presse méd. **47:** 593 (April 19) 1939. Midana, A., and Vercellino, L.: Les altérations du système nerveux central de l'homme dans la poradénite inguinale, Bull. Soc. franç. de dermat. et syph. **41:** 161 (Feb.) 1934. Coutts, W. E.: Lymphogranuloma Inguinale as a General Disease, J. Trop. Med. & Hyg. **39:** 13 (Jan. 15) 1936. David, V. C., and Loring, Mark: Extragenital Lesions of Lymphogranuloma Inguinale, J. A. M. A. **106:** 1875 (May 30) 1936. Koschucharoff, B.: Ueber das Vorkommen einer Infektion des Zentralnervensystems beim Lymphogranuloma inguinale, Klin. Wchnschr. **17:** 876 (June 18) 1938.

4. von Haam, Emmerich, and D'Aunoy, Rigney: Infectivity of the Spinal Fluid in Lymphogranuloma Inguinale, J. A. M. A. **106:** 1642 (May 9) 1936.

5. von Haam, Emmerich: Personal communication to the authors.

There were prolonged periods of muttering delirium in which he would pick at the covers and roll his head from side to side. He had to be restrained constantly until February 3. During this period he also exhibited mild to moderate left facial weakness, bilateral Hoffmann signs, the Oppenheim sign on the right side and paralytic ileus.

On February 3, three weeks after onset of the acute phase of the disease, he became clear mentally, well oriented and entirely cooperative, but he had no memory of his recent illness. This defect in recent memory, which was also evident from the fact that he could not remember test numbers longer than two to three minutes, persisted until February 20. He was usually drowsy, and the neurologic signs previously noted remained, although less severe. By March 5 he had improved sufficiently to be allowed to sit up. When he attempted to sit still and erect there was an involuntary rotary movement of the head and coarse tremor of the hands was observed in the performance of the finger to nose test. On March 11 he was allowed to be up and about. Two weeks later, March 25, he complained that his legs were not so strong as they had been before his illness, and slight head and intention tremors were still present. Because of the persistence of these neurologic signs as well as of the definitely abnormal character of the cerebrospinal fluid, indicative of a persisting chronic inflammatory process, sulfathiazole by mouth was started on March 26. A considerable drop in the number of cells and in the amount of protein in the cerebrospinal fluid occurred within a week. Two weeks later he was clinically normal, and on April 20 he was discharged from the hospital, although his cerebrospinal fluid still contained 102 lymphocytes per cubic millimeter and 250 mg. of protein per hundred cubic centimeters. On June 11 he returned to the clinic and stated that he was working. Clinically there were no abnormalities but his cerebrospinal fluid still contained 52 lymphocytes per cubic millimeter and 110 mg. of protein per hundred cubic centimeters. He failed to return to the clinic subsequently and thus far has not been located.

*Summary of Data on a Patient with Lymphogranuloma Venereum Meningoencephalitis**

Date 1942	Day of Acute Illness	Temperature	Nervous System Signs	Cerebrospinal Fluid: White Cells	Protein, Mg./100 Cc.	Sugar, Mg./100 Cc.	Chloride, Mg. NaCl/100 Cc.	Isolation of Lymphogranuloma Venereum Virus	Complement Fixation (L.V.) Titer (Serum)	Frei Test
Jan. 14	2	105 F.	Headache, stiff neck, delirium; incoherent	4,000	250	42	666			
Jan. 16	4	105.6 F.	Same	1,300	250	17	...	Cerebrospinal fluid + Blood 0	1:120	
Jan. 18	6	102.5 F.	Headache, stiff neck, drowsy	1,800	275	20	...			
Jan. 22	10	Normal	More alert, tremulous; slight left facial weakness, stiff neck	1,800	382	49	543			
Jan. 27	15	Normal	Periodic delirium; apprehensive, disoriented, hallucinated; stiff neck; tremulous; paralytic ileus, bilateral Hoffmann, right Oppenheim, moderate left facial weakness	900	700	52	507	Cerebrospinal fluid 0 ..... Penile wart 0 ..... Penile lesion +		Negative (lygranum)
Feb. 10	29	Normal	Drowsy, alert when awake, no memory of illness	430	1,320	42	601	Inguinal lymph node +	1:240 (Feb. 6)	
Feb. 17	36	Normal	Clearer mentally, some drowsiness, slight left facial weakness, intention tremor	620	...	..	...	Cerebrospinal fluid + ...		Feb. 14—Negative Feb. 21—Negative with 4 human antigens, positive with one
March 3	50	Normal	Head tremor, intention tremor, jocular	500	860	68	564	Epitrochlear lymph node 0		Feb. 28—Negative (lygranum)
March 16	63	Normal	Walking	1,750	600	79	577	Cerebrospinal fluid 0	1:240 (March 20)	
March 26	73	Normal	Slight intention tremor; sulfathiazole by mouth started	1,280	1,400	56	638			
April 2	79	Normal	Unchanged	228	545	64	664			
April 9	86	Normal	Normal	198	315	75	672			
April 16	93	Normal	Normal	102	250	69	692			
June 11	149	Normal	Working	52	110	45	723			

* J. B., a Negro aged 25, had had headache, cough and malaise since about Dec. 15, 1941; the onset of fever and acute nervous signs appeared on Jan. 13, 1942.

CLINICAL LABORATORY DATA

Cerebrospinal Fluid.—Nineteen lumbar punctures were performed between January 14 and June 11, 1942, and the essential findings on many of these specimens are shown in the accompanying table. The fluid was opalescent and somewhat xanthochromic. At the first examination 25 per cent of the 4,000 white cells were polymorphonuclear leukocytes, but these gradually decreased until none were present after February 18. The bulk of the white cells were lymphocytes, although early in the disease, before the diagnosis was known, it was noted that an appreciable number of large mononuclear cells were present and that examination of a hanging drop with the oil immersion lens revealed "colonies" of dancing particles in the cytoplasm of these mononuclear cells. The possibility that these were cells containing colonies of "elementary bodies" of the virus of lymphogranuloma venereum must therefore be considered, and it may be worth while looking for such cells in future cases. The virus was isolated from the specimen of cerebrospinal fluid in which these cells were seen. The number of erythrocytes varied from none to a maximum of 800 per cubic millimeter between January 14 and March 16 and none thereafter. It is noteworthy that the sugar was low (17 mg. and 20 mg. per hundred cubic centimeters) on two occasions early in the disease and the chloride content was subnormal for more than two months, the lowest value having been 450 mg. of sodium chloride per hundred cubic centimeters. It is also of interest in this connection that the Levinson and tryptophan tests, which are supposed to be indicative of tuberculous meningitis, were positive early in the course of the disease. Nine colloidal gold tests from February 5 to June 11 gave typical first zone curves, precipitation being complete in the first 5 to 8 tubes between February 5 and April 9, and the June 11 reaction was still 5555432000. The Wassermann reaction was negative on five occasions. Cultures on ordinary mediums were negative on four occasions.

Blood.—On January 14 the hemoglobin was 12.5 Gm., the red cells numbered 4,700,000 and the leukocytes 15,000 with 69 per cent neutrophils. Leukocytosis was maintained at about this level through February 1. Thereafter, the number of leukocytes ranged between 6,800 and 9,700 per cubic millimeter. The blood urea nitrogen was 23 mg. per hundred cubic centimeters on January 14 and on February 19 the total nonprotein nitrogen was 28 mg. On February 5 the plasma content of chlorides was 512 mg. per hundred cubic centimeters while that of the cerebrospinal fluid obtained simultaneously was 552

mg. On February 19 the total serum protein was 7.68 Gm., albumin 4.73 Gm. and globulin 2.95 Gm., with an albumin globulin ratio of 1.6. The Kahn test on the blood gave a negative result on January 14 and February 19. The complement fixation test for gonorrhea was negative on February 21; this was done because a urethral smear at this time revealed gram-negative diplococci. A blood culture was negative on January 14.

Urine and Stools.—The urine contained small amounts of albumin on January 14 and 21 and February 12 and 15, but was normal on January 31 and February 7 and 10 and subsequently. The stools gave a positive guaiac reaction for blood on January 14 and February 6.

Roentgenograms.—Examination of the chest on January 14 revealed increased markings throughout both lung fields, especially toward the bases; it was also noted that a small amount of peribronchial infiltrate may have been present throughout the lower half of the right lung field. A second examination on February 6 revealed no abnormalities.

Cutaneous Tests.—The tuberculin test was negative. A number of Frei tests were done in which lygranum as well as human antigens was used, all of which gave negative results with one exception, as indicated in the table.

VIRUS STUDIES

Cerebrospinal Fluid.—The first specimen of cerebrospinal fluid, obtained on January 16, was immediately injected into 12 mice as follows: 0.03 cc. intracerebrally, 0.05 cc. intranasally under ether anesthesia and 0.5 cc. intraperitoneally into each mouse. Cultures of this fluid taken on ordinary bacteriologic mediums were negative. All the mice remained well for seven days but on the eighth day 7 of the 12 mice exhibited distinct nervous signs (hunched, ruffled hair, ataxic, tremulous, convulsive). One of the mice died during a convulsion and another was killed for study on the eighth day. A third mouse with persistent nervous manifestations was killed for study on the twelfth day and a fourth mouse died on the nineteenth day during a convulsion which developed when it was held up by the tail and twirled. The other 3 mice of the first group of 7 had recovered by the twenty-first day. The remaining 5 mice of the original group of 12 became ill on the twelfth day but recovered by the fifteenth day.

The mice that died or were killed presented no gross pathologic changes either in the lungs or viscera or in the brain, and cultures of these tissues taken on ordinary bacteriologic mediums were sterile. Histologically there was a well defined mononuclear and polymorphonuclear meningitis affecting the brain and cord and an ependymitis limited to the ventricles. Neither the neurons nor the choroid plexus was affected. There were also a focal interstitial pneumonitis and multiple foci, consisting of collections of mononuclear cells with large vesicular nuclei; and occasional polymorphonuclear leukocytes, occupying the sites of several cords of parenchymal cells were present in the liver.

Successful passage was accomplished by intracerebral inoculation into new mice of brain suspension of the mice that succumbed or were killed on the eighth day. More than twenty serial passages were carried out before the virus was stored in the frozen state. Beginning with the third passage, the incubation period was reduced to two to three days. Although the morbidity rate was high and mice inoculated with the 10^{-6} and 10^{-7} dilutions developed typical nervous signs (confirmed by the presence of the typical histologic changes and by positive passage), the mortality was never more than 20 per cent even among the mice receiving the lightly centrifuged 10 per cent suspension. Beginning with the thirteenth passage 20 per cent and 40 per cent mouse brain suspensions were used without preliminary centrifugation, and this almost regularly resulted in 90 to 100 per cent mortality, usually in two to five days and more rarely as late as fourteen days. Mice that developed nervous signs following intracerebral inoculation and recovered were immune to reinoculation with the heavy suspensions of virus which were almost regularly fatal for the normal animals. Intraperitoneal or intracutaneous injection or nasal instillation under ether anesthesia of 10 per cent virulent mouse brain suspension was without any apparent effect in mice, and none of them became immune to intracerebral inoculation one month later. One noteworthy exception was a mouse which showed nervous signs sixteen days after nasal instillation of the virus. The lungs were normal, but the brain showed both encephalitozoon and virus lesions, and many groups of encephalitozoa were clearly seen in all the sections. Passage of the brain tissue in mice yielded only the virus, however, and no encephalitozoa were found in the sections. It would appear possible, therefore, that in the presence of an encephalitozoon infection this virus may localize and produce lesions in the brain after nasal instillation and perhaps after inoculation by other peripheral routes.

Intracerebral inoculation of this virus in guinea pigs and rabbits failed to produce any obvious illness, although slight fever was present for one or two days after injection.

Intracutaneous, subcutaneous and intraperitoneal injection of the virus in guinea pigs resulted in the development of large indurated cutaneous lesions with enlargement of the regional lymph nodes. Filtration of a thoroughly centrifuged virulent 1 per cent mouse brain suspension in broth through Berkefeld filters V, N and W and through a Seitz filter (all impervious to Bacillus prodigiosus) was unsuccessful, although the centrifuged material was infective in at least a 10^{-5} dilution.

Three additional attempts were made to isolate virus from the cerebrospinal fluid of this patient. Fluids obtained on January 27 and March 16 yielded negative results clinically, histologically and on passage. The fluid obtained on February 17 (five weeks after acute onset) produced clinical signs in 3 of 10 mice after an incubation period of twelve to seventeen days, and the presence of the same virus was confirmed by microscopic examination and by several positive passages.

Lesions on Penis.—After the foreskin was pulled back the penis was thoroughly washed with sterile isotonic solution of sodium chloride, and some of the minute shallow ulcers and pseudoherpetic lesions just proximal to the glans were scraped with a sterile scalpel and the scrapings transferred to salt solution. The scraped areas also were washed with salt solution collected with a capillary pipet. Since this material, totaling 5.5 cc., was obviously dilute and not sufficiently bacteria free for intracerebral inoculation in mice, it was all injected subcutaneously into the inguinal region of the abdomen of 1 guinea pig. The regional inguinal lymph nodes that were examined daily were first definitely enlarged on the eighth day, and by the tenth day there was an indurated inflamed mass 2.5 cm. by 2.5 cm. and about 1 cm. thick adherent to the muscle and skin. A piece was obtained by biopsy for cultures, microscopic examination and passage. The guinea pig survived and had no fever or any other abnormal manifestation. Smears and cultures revealed no bacteria, and histologically the tissue was characterized by definite proliferation of the periglandular connective tissue and capillary endothelium with only sparse infiltration with mononuclear and polymorphonuclear cells. The enclosed lymph node appeared hyperplastic but there were no purulent areas nor was there even an excess of polymorphonuclear leukocytes. Passage of a 10 per cent centrifuged suspension of this tissue subcutaneously in a guinea pig and intracerebrally in 6 mice was positive. A similar mass with enlargement of the regional inguinal lymph nodes developed in the guinea pig; this mass regressed after two weeks and the guinea pig remained well without fever for two months. All the mice showed nervous signs after an incubation period of seven days, and 3 died with convulsions on the eighth, tenth and sixteenth days respectively. This strain of virus underwent twelve serial intracerebral passages before storage and proved to be more virulent than those isolated from the cerebrospinal fluid. The incubation period was usually two days or less and most mice inoculated with the 10 per cent or 20 per cent suspension died in two to six days. It was infective intracerebrally in a dilution of 10^{-6} but few of the mice receiving the 10^{-2} dilution or less died. It produced necrotic cutaneous lesions on intracutaneous injection in guinea pigs but was not pathogenic on intracerebral inoculation in the rabbit.

Penile Wart.—On January 31 a wart about 1 cm. in diameter was removed from the penis just proximal to the corona. Histologically it had the characteristics described for venereal warts and eosinophilic, cytoplasmic inclusions resembling Guarnieri

bodies were found in the epithelial cells, the latter observation confirming Wilson's report of the presence of eosinophilic, cytoplasmic inclusions in genital warts.[6] Inoculation of a suspension of the wart intracerebrally and intraperitoneally into mice and intracutaneously and subcutaneously in a guinea pig was negative clinically, histologically and on passage, and the recovered animals were not immune to the strain of virus isolated from the cerebrospinal fluid.

Lymph Nodes.—An inguinal lymph node (1.5 cm. by 0.8 cm. by 0.5 cm.) weighing about 2 Gm. was removed on February 10. On section there were multiple miliary abscesses containing gelatinous "pus" which was bacteria free on smear and culture. A lightly centrifuged suspension was inoculated intracerebrally in 10 mice and intracutaneously (0.2 cc.) and subcutaneously (1 cc.) in the groin of a guinea pig. All the mice showed nervous signs between two and six days after inoculation; 1 died with convulsions on the eighth day while the others recovered at the end of a month. The guinea pig showed the same large (4 cm. by 4 cm.) indurated adherent mass in the inguinal region and the same cutaneous lesions as were observed after inoculation with the strains of virus isolated from the cerebrospinal fluid and penile scrapings. Ten serial intracerebral passages in mice were carried out before the strain of virus from the lymph node was stored. This virus behaved in every respect like the other two strains.

Since there was some question as to whether or not lymph nodes other than those in the inguinal region were enlarged or affected by the virus, an epitrochlear node which was just palpable was removed on March 3 for microscopic study and animal inoculation. Histologically the lymph node was essentially normal and no virus was demonstrable by mouse inoculation and passage.

Blood.—Citrated blood obtained on January 16 (simultaneously with the first specimen of cerebrospinal fluid) was inoculated intracerebrally and intraperitoneally into 10 mice. A virus was not demonstrable, the microscopic examination and passage on the killed mice being negative and the remaining mice being without immunity for the strain of virus isolated from the cerebrospinal fluid.

Identification of the Viruses Isolated.—The viruses isolated from the cerebrospinal fluid, the penile lesion and the inguinal lymph node although varying somewhat in virulence were found to be identical in their host range, pathogenicity, pathologic changes produced in the nervous system of the mouse and in their immunologic properties. Mice recovering from infection following intracerebral inoculation with virus from one source were immune to reinoculation not only with the homologous strain but also with the fatal doses of the viruses isolated from the other sources.

The properties of these viruses correspond most closely with those of the virus of lymphogranuloma venereum. A strain of lymphogranuloma venereum virus supplied by Dr. Geoffrey Rake of the Squibb Institute for Medical Research was given intracerebrally to mice, and a number of animals proved to be immune to this virus were thus obtained. These mice were found to be immune also to regularly fatal doses of the virus isolated from this patient, and mice immune to the latter virus were also solidly immune to the virus of lymphogranuloma venereum. No such cross immunity was demonstrable with the virus of lymphocytic choriomeningitis (W. E. strain was supplied by Dr. Joseph Smadel of the Rockefeller Institute).

The recent demonstration by Rake, Eaton and Shaffer [7] and by Eaton, Martin and Beck [8] that the viruses of lymphogranuloma venereum, psittacosis, meningopneumonitis of Francis and Magill [9] and pneumonitis of Eaton, Beck and Pearson,[10] although all distinct, are sufficiently related biologically and immunologically to warrant their consideration as a single group requires special caution in the final identification of newly isolated strains with similar or related properties. The viruses isolated from this patient, like that of lymphogranuloma venereum, differ from the other members of this group in their lower virulence by the intracerebral route in mice and together with the pneumonitis virus of Eaton and his associates by their lack of pathogenicity by the intraperitoneal route. However, when Eaton's pneumonitis virus is injected intraperitoneally in mice it produces immunity to subsequent intracerebral inoculation,[10] while the viruses isolated from our patient and the lymphogranuloma venereum virus do not. Moreover, Eaton's pneumonitis virus is of greater pathogenicity for guinea pigs by the intracerebral or intraperitoneal routes, and the convalescent serum of such guinea pigs is devoid of complement fixing antibodies for the virus of lymphogranuloma venereum.[8] On the other hand, serum obtained from guinea pigs one month after subcutaneous and intraperitoneal or subcutaneous inoculation with the strains of virus derived from the cerebrospinal fluid and penile lesions of our patient contained complement fixing antibodies for the virus of lymphogranuloma venereum in a titer of 1:15. (The tests were performed by Drs. Morris Shaffer and Geoffrey Rake on serum specimens supplied by us.) These findings, taken together with the complete cross immunity that was demonstrated, left little doubt that the strains of virus isolated from our patient were identical with the lymphogranuloma venereum member of this group of viruses. Furthermore, Dr. Rake has carried out a number of studies with our strains of virus, and he found among other things that "the agent is susceptible to sulfonamide therapy, which would exclude all known members of this group [lymphogranuloma venereum-psittacosis] except lymphogranuloma venereum and Nigg's mouse pneumonitis. The virus goes by the intracerebral route and not by the intraperitoneal route which would exclude Nigg's virus and leave only lymphogranuloma venereum."

Serologic Tests on Patient's Serum.—Complement fixation tests with lymphogranuloma venereum antigen [11] performed by Drs. Shaffer and Rake on 3 specimens of the patient's serum were positive in serum dilutions of 1:120, 1:240 and 1:240 on January 16, February 6 and March 20 respectively. It is noteworthy that the complement fixation test for lymphogranuloma venereum gave positive while the Frei test gave negative results. The patient's serum also fixed complement (+++) in a serum dilution of 1:32 with the virus of meningopneumonitis in a test performed by Dr. Monroe D. Eaton of the California State Department of Public Health. This is in agreement with the known relationships among the viruses of this group.[7] Repeated complement fixation tests with the viruses of lymphocytic choriomeningitis, St. Louis and eastern and western equine encephalitis viruses carried out by Dr. J. Casals of the Rockefeller Institute were negative.

Negative results were obtained in attempts to demonstrate neutralizing antibodies even against minimal amounts of the virus isolated from the cerebrospinal fluid in 2 specimens of the patient's serum and in guinea pig convalescent serum by intracerebral inoculation in mice, despite the fact that the serum-virus mixtures had long in vitro incubation, and the most sensitive index of the infection, namely the weight curve, was utilized.

A more detailed account of the properties of the viruses isolated from the patient and of the immunologic studies carried out with them will be published elsewhere in association with Mr. Isaac Ruchman, who assisted in these studies.

COMMENT

The evidence presented in this communication can leave little doubt that the virus of lymphogranuloma venereum can be the cause of severe meningoencephalitis in man. Clinically this disease may be readily confused at certain stages with tuberculous meningitis or lymphocytic choriomeningitis. The fact that lymph

6. Wilson, J. F.: Genital Warts, J. Roy. Army. M. Corps **68:** 227 (April), 305 (May) 1937.

7. Rake, Geoffrey; Eaton, M. D., and Shaffer, M. F.: Similarities and Possible Relationships Among Viruses of Psittacosis, Meningopneumonitis and Lymphogranuloma Venereum, Proc. Soc. Exper. Biol. & Med. **48:** 528 (Nov.) 1941.

8. Eaton, M. D.; Martin, W. P., and Beck, M. D.: The Antigenic Relationship of the Viruses of Meningopneumonitis and Lymphogranuloma Venereum, J. Exper. Med. **75:** 21 (Jan.) 1942.

9. Francis, T., Jr., and Magill, T. P.: An Unidentified Virus Producing Acute Meningitis and Pneumonitis in Experimental Animals, J. Exper. Med. **68:** 147 (Aug.) 1938.

10. Eaton, M. D.; Beck, M. D., and Pearson, H. E.: A Virus from Cases of Atypical Pneumonia: Relation to the Viruses of Meningopneumonitis and Psittacosis, J. Exper. Med. **73:** 641 (May) 1941.

11. McKee, Clara M.; Rake, Geoffrey, and Shaffer, M. F.: Complement Fixation Test in Lymphogranuloma Venereum, Proc. Soc. Exper. Biol. & Med. **44:** 410 (June) 1940.

node involvement may be minimal and that the Frei reaction can be negative, as in the present case, indicates that suspicion of this form of meningoencephalitis should not be limited to patients with other obvious manifestations of lymphogranuloma venereum. The clinical manifestations and course of this type of meningoencephalitis will no doubt be found to vary considerably from those presented by our patient. Two recent reports, viewed in the light of our findings, suggest that meningoencephalitis due to the virus of lymphogranuloma venereum may on occasion run a rapidly fatal course. Rajam [12] recorded an instance of death from meningoencephalitis in a man aged 27 in whom the Frei reaction was strongly positive. This complication occurred during the fourth week of the disease, three days after the incision of a bubo. The cerebral signs were heralded by confusion and repeated convulsions; the first fit was followed immediately by coma in which the patient remained until death seventeen hours after the onset of the cerebral signs. Necropsy was not performed. The cerebrospinal fluid was said to have been clear and "under great pressure." It contained 136 white blood cells per cubic millimeter, 90 of which were polymorphonuclear leukocytes and 46 lymphocytes. There were 95 mg. of albumin and 25 mg. of globulin per hundred cubic centimeters of the cerebrospinal fluid. The Wassermann reaction was negative on the blood and cerebrospinal fluid. Rajam injected 0.1 cc. of this cerebrospinal fluid intracutaneously in 2 patients with lymphogranuloma venereum and obtained a positive reaction in both. Another important case, recorded in a few lines (p. 28) in the recent review by D'Aunoy and von Haam,[2] who stated that it was observed by Dr. R. Schenken in their laboratory, was described as follows: "A woman 45 years of age who had been suffering for some time with inflammatory stricture of the rectum was admitted to the hospital with symptoms of meningeal irritation. These were ascribed to pellagra, a frequent complication of stricture of the rectum. Autopsy and histologic examination revealed a diffuse meningeal reaction with lymphocyte and plasma cell infiltration and localized areas of superficial necrosis. Intracerebral inoculation of emulsions of this brain into white mice produced the typical picture of venereal lymphogranuloma encephalitis. The recovered virus was transmitted through several generations of white mice. Antigens prepared from these infected mouse brains gave positive cutaneous reactions in patients proved to have the disease." Although the evidence adduced in these 2 cases cannot in itself be regarded as complete proof that the virus of lymphogranuloma venereum, and not some other or related virus, was the cause of the meningoencephalitis and death, that would appear to be the most probable explanation, particularly in view of the data presented in the present communication.

The importance of considering the virus of lymphogranuloma venereum as one of the agents causing meningocephalitis in man and of arriving at an early diagnosis is emphasized by the fact that among the virus infections of the nervous system it is the only one in which there is reason to expect a therapeutic effect from the administration of the sulfonamides. As was stated before, we would suspect this type of meningoencephalitis not only in persons with obvious manifestations of lymphogranuloma venereum but also, as in the present case, when only minimal, noncharacteristic enlargement of the inguinal lymph nodes is associated with the nervous manifestations, as well as in instances in which no other etiologic agents can be implicated. The special steps to be taken in a suspected case should include (1) inoculation of several specimens of the cerebrospinal fluid intracerebrally (0.03 cc.) and intraperitoneally (1 cc.) into groups of 6 to 10 young mice, (2) a complement fixation test on the patient's serum with lymphogranuloma venereum antigen,[13] (3) the Frei test, (4) a biopsy of suspected lymph node for microscopic examination and animal inoculation. In addition to inoculating mice and guinea pigs, one may also inject bacteria free material into the yolk sac of developing 5 to 7 day old chick embryos.[14] It would be inadvisable, however, to limit the inoculations to eggs since, as in the present case, the particular strain of virus may have a low initial virulence for the chick embryo. It is also important to remember that the serums of persons recovered from psittacosis or atypical pneumonia due to Eaton's virus [10] can fix complement with lymphogranuloma venereum antigen and that positive Frei tests have also been obtained in these cases of atypical pneumonia.[7] The most conclusive evidence, therefore, may be derived chiefly from the pathogenic properties and immunologic identity of a strain of virus that is isolated from the patient. Finally, whenever this type of meningoencephalitis is suspected it would appear advisable to institute sulfonamide therapy as soon as the cerebrospinal fluid and blood (and if possible lymph node) have been obtained for the diagnostic tests and before the results of those tests are known.

SUMMARY

Severe meningoencephalitis associated with slightly enlarged inguinal lymph nodes in a Negro aged 25 was proved to be caused by the virus of lymphogranuloma venereum. This virus was isolated from one of the inguinal lymph nodes, from seemingly insignificant lesions on the penis and on two occasions from the cerebrospinal fluid. The viruses isolated from these three sources were proved to be identical with one another and with the virus of lymphogranuloma venereum in their pathogenic and immunologic properties. No virus was demonstrated in the blood, in an epitrochlear lymph node or in a venereal wart. The patient's serum obtained three days after the onset of acute nervous symptoms had a complement fixation titer of 1:120 with lymphogranuloma venereum antigen and on two subsequent occasions the titer was 1:240. These positive complement fixation tests were obtained at a time when Frei tests gave negative results.

The signs and symptoms remained severe for about a month after the acute onset, and without any special therapy gradual improvement occurred in subsequent weeks. Ten weeks after the acute onset, however, he still had a slight intention tremor and his cerebrospinal fluid still contained 1,200 white cells per cubic millimeter and 1,400 mg. of protein per hundred cubic centimeters. Sulfathiazole therapy was then started and two weeks later he was clinically normal and his cerebrospinal fluid contained 198 white cells per cubic millimeter and 315 mg. of protein per hundred cubic centimeters. Five months after the acute onset when he was back at work

12. Rajam, R. V.: Report of a Fatal Case of Lymphogranuloma Inguinale from Meningoencephalitis, Brit. J. Ven. Dis. **12**: 237 (Oct.) 1936.

13. Rake, Geoffrey; Shaffer, M. F.; Grace, A. W.; McKee, Clara M., and Jones, H. P.: New Aids in the Diagnosis of Lymphogranuloma Venereum, Am. J. Syph., Gonor. & Ven. Dis. **25**: 687 (Nov.) 1941. McKee, Rake and Shaffer.[11]

14. Rake, Geoffrey; McKee, Clara M., and Shaffer, M. F.: Agent of Lymphogranuloma Venereum in the Yolk-Sac of the Developing Chick Embryo, Proc. Soc. Exper. Biol. & Med. **43**: 332 (Feb.) 1940.

and essentially normal his cerebrospinal fluid still had 52 white cells per cubic millimeter and 110 mg. of protein per hundred cubic centimeters.

The importance of recognizing the virus of lymphogranuloma venereum as one of the causes of meningoencephalitis in man is emphasized by the fact that among the known virus infections of the nervous system it is the only one in which there is reason to expect a therapeutic effect from the administration of the sulfonamides.

Elland Avenue and Bethesda.

Clinical Notes, Suggestions and New Instruments

DIVERTICULA OF THE MALE URETHRA

REPORT OF TWO CASES

HARRY G. McGAVRAN, M.D., DETROIT

A diverticulum (from the Latin diverticulare, meaning to turn aside) is defined in Dorland's Medical Dictionary as a pouch or pocket leading off from a main cavity or tube. From this broad definition there have been many discussions as to whether or not a pouch is a true diverticulum or a pseudo diverticulum, depending on various criteria.

LeCompte and Herschman [1] give an excellent discussion regarding this problem in relation to urethral pouches. It is not my purpose in this paper to enter into this argument but rather to present 2 instances of unusually large pouches in the anterior urethra of the male which may be called diverticula, according to the broad definition.

A review of the literature reveals that these are the first 2 cases to occur following transurethral prostatic resection and that therefore they may be added to the ever climbing list of complications of this surgical procedure. The reported cases of urethral diverticula in the male are still small enough in number to place them in the category of being rare.

Watts [2] in 1906 was the first in the American literature to make a collection of the reported cases, adding at this time a case of his own. He found and classified 16 cases as being congenital and 24 as being acquired. Ternovsky [3] in 1930 stated that the number of congenital cases in the literature did not exceed 60.

A careful perusal of the modern literature reveals that instances of acquired diverticula are being reported in increasing numbers in about the same ratio as the increase in the number of cases of congenital origin. From 1930 to the present time more than 40 cases of both the congenital and the acquired type have been reported. In this period the etiology, pathology, symptomatology and treatment have been discussed in sufficient detail to negate the necessity of repetition here. However, since Watts's original classification according to etiology, there has been little change. The classification is presented here so as to place properly the 2 cases to be reported:

A. Congenital.

B. Acquired.

1. From dilation of the urethra:

(*a*) Due to stones in the urethra.

(*b*) Due to stricture of the urethra.

2. With perforation of the urethra resulting from:

(*a*) Injuries to the urethra.

(*b*) Rupture of abscess into the urethra.

(*c*) Rupture of cysts into the urethra.

Case material made available by Dr. Harry Culver of Chicago and Dr. Fred H. Cole of Detroit.

1. LeCompte, R. M., and Herschman, M. J.: Diverticula of Male Urethra, J. Urology **30**: 463-474 (Oct.) 1933.

2. Watts, S. H.: Urethral Diverticula in the Male with Report of a Case, Johns Hopkins Hosp. Rep. **13**: 49-90, 1906.

3. Ternovsky, S.: Congenital Diverticulum of Urethra, Urol. & Cutan. Rev. **34**: 578-581 (Sept.) 1930.

REPORT OF CASES

The first case is of exceptional interest because the diverticulum developed under continuous observation:

CASE 1.—M. M., a man aged 67, a patient at Harper Hospital from Oct. 24, 1939 until the time of writing, both as a hospitalized patient and as a patient seen in the outpatient department, when first seen complained of frequency, dysuria and dribbling, progressing over a period of four years. The past history and family history were noncontributory. On physical examination the blood pressure was 190 systolic and 84 diastolic and the temperature, pulse and respiratory rate were normal. General examination was negative except for a slightly enlarged heart. The genitalia were normal. Rectal examination revealed a prostate symmetrically enlarged, 3 plus and uniformly indurated 2 plus, probably on an infectious basis. Laboratory tests, October 25, showed that the urine was alkaline, with a specific gravity of 1.010. Tests for albumin and sugar were negative. Microscopic examination was negative. A blood count showed hemoglobin 85 per cent, red blood cells 3,490,000 and white blood cells 12,400, with polymorphonuclear leukocytes 71 per cent, lymphocytes 26 per cent, monocytes 2 per cent and eosinophils 1 per cent. Blood chemistry showed nonprotein nitrogen 38.7 mg. per hundred cubic centimeters and sugar

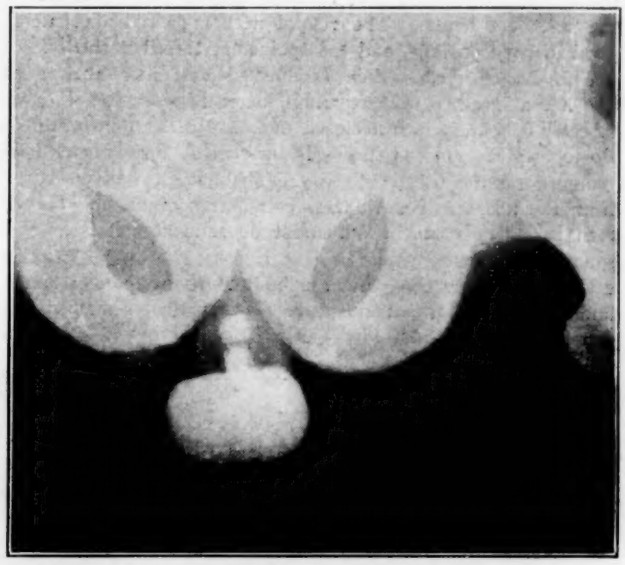


Fig. 1 (case 1).—Anteroposterior view showing normal urethra proximal to the diverticulum.

0.092 per cent. The Kahn reaction was negative. An electrocardiogram revealed coronary sclerosis with mild myocardial damage.

The patient was hospitalized November 1 for study and preparatory for a possible transurethral prostatectomy. Urethral catheter drainage was started. Cystoscopy revealed enlargement of both the median and the lateral lobe of the prostate. There was a typical, coarsely trabeculated bladder. Urethroscopy revealed a normal urethra.

After five days of catheter drainage a transurethral resection was done. Microscopic examination of the tissue revealed benign hyperplasia. In the postoperative course a prevesical abscess developed which had to be drained. There also appeared a periurethral abscess at the penoscrotal junction which ruptured into the urethra spontaneously after the catheter was removed on the ninth day. The urine was badly infected. Because of the rise in temperature a catheter was reinserted on the seventeenth day for five days. The patient was able to void well after the second removal of the catheter, and his only complaint was partial incontinence. The prevesical incision ceased draining, the penoscrotal area remained flat and nonindurated and the patient was discharged on the forty-first hospital day wearing a rubber urinal.

The patient was seen in the outpatient department four and six weeks after discharge from the hospital. He was still wearing the rubber urinal despite the fact that he was able to hold his urine well when the bladder was artificially distended. He was advised at this time against wearing the rubber urinal because it did not fit him, causing pressure on the ventral side of the penis.

Bougies (No. 18 French) were passed with ease on these two visits. There was no evidence of periurethral swelling. The patient did not return to the outpatient department for eight weeks. He then returned complaining of an increased incontinence and swelling along the penis. He was still wearing the rubber urinal. Examination revealed a swelling at the penoscrotal junction the size of a lemon. A catheter passed back 3 inches into the urethra drained off 1½ ounces (45 cc.) of infected urine, with concomitant disappearance of the swelling. The catheter was then passed into the bladder with ease and no residual urine was found. A No. 24 French sound was also passed into the bladder with ease.

On March 29, 1940 the patient was again admitted to the hospital for study. Urethrograms (figs. 1 and 2) were made and a cystourethroscopic examination was done. The latter revealed an os elongated to 2.5 cm., situated just anterior to the external sphincter and opening into a large diverticulum the size of a lemon. The vesical neck appeared adequate for good urinary passage, and the sphincter reacted normally.

The diagnosis was then established that incontinence was due to a urethral diverticulum exclusively. The sac was resected and the urethra closed over a No. 20 Foley catheter. Postoperative convalescence was uneventful, the catheter being removed on the fourteenth day. The patient was discharged from the hospital a week later completely continent. He was seen periodically in the outpatient department and large sized sounds were easily passed.

One year later the patient submitted to cystoscopy and all findings were essentially negative. The patient remained completely continent and voided freely.

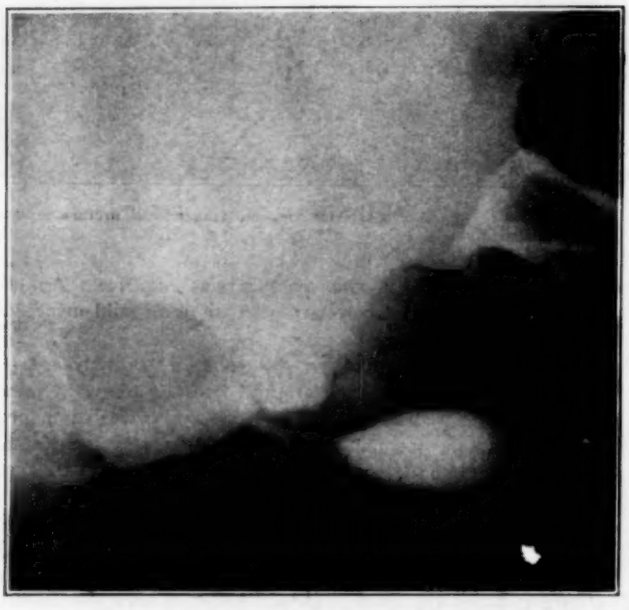


Fig. 2 (case 1).—Lateral view.

CASE 2.—G. D., a man aged 68, admitted to St. Luke's Hospital, Chicago, May 1, 1942, complained of a swelling at the base of the penis of two years' duration. He had not been seen prior to the development of the lesion. Five years previously he had had two transurethral prostatic resections six weeks apart. Since the second operation he had been totally incontinent and constantly employed a clamp on the penis. The follow-up treatment included the passing of "large" sounds biweekly. Two years before admission a swelling of the penoscrotal junction developed. He did not recall any mention of abscess but did note that from then on no sound could be passed. The patient observed that the swelling was always larger just prior to his releasing the clamp. He also noted that manual pressure over the mass always deflated it and produced 1 or 2 ounces (30 or 60 cc.) more of clear urine after the bladder was empty. He sought relief of his incontinence and also of the bilateral inguinal ache present when the bladder was full. It was necessary to open the clamp every two hours day and night.

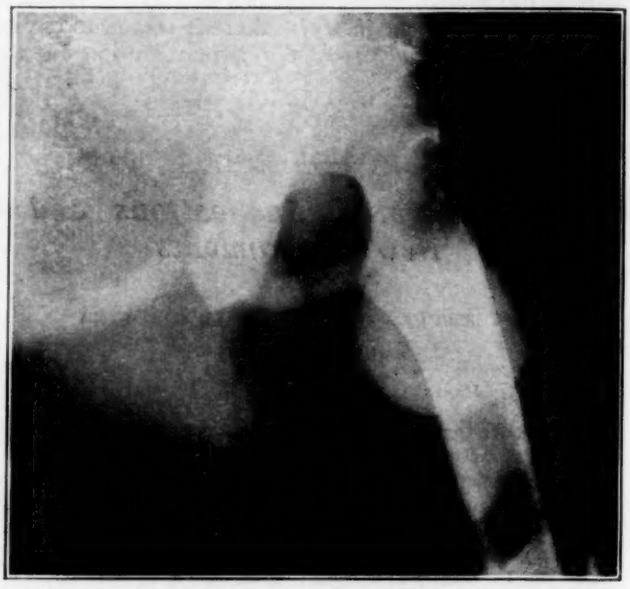


Fig. 3 (case 2).—Lateral view showing tip of syringe lying in distal end of the anterior portion of the urethra in the lower right corner.

His past history was essentially negative. Physical and laboratory examinations, including the Wassermann test, were negative except that there was mild hypertension (154 systolic and 90 diastolic) and slight secondary anemia. Urinalysis was negative.

Examination of the genitalia revealed a lemon size mass at the penoscrotal junction; pressure of this mass caused deflation and flow of urine from the urethra. Cystourethroscopy revealed a finely trabeculated bladder of normal capacity and low tonicity. There was a well developed urachal pouch. The bladder neck had been adequately resected, but verumontanum was absent. Halfway down the anterior portion of the urethra there was a well defined os of a diverticulum of large capacity. The os was about 1 cm. in diameter. A urethrogram was then made (fig. 3).

Because of complete incontinence and clearness of the urine, surgery of this sac seemed inadvisable and was not attempted.

COMMENT

These 2 cases parallel each other in all but the time element. Both patients had transurethral prostatic resections and some urethral dilations prior to the development of the diverticula and in both the lesion developed in the anterior portion of the urethra at the penoscrotal junction.

The two lesions were about the same size. The men were practically of the same age level and were admitted with the same complaints of swelling at the base of the penis and incontinence. Both cases come under Watts's classification of acquired diverticula.

In the first case it is easy to follow along the development and to hypothesize the cause. That a periurethral abscess ruptured into the urethra is an established fact. What caused this abscess cavity to expand might be explained on the basis that the rubber urinal worn by the patient pressed against the urethra just anterior to the penoscrotal junction. This served

as a mild obstruction, since no actual anatomic obstruction existed. Thus the urine, under pressure, expanded the cavity to its large proportions. This hypothesis is very similar to that expressed by Carlton.[4] He believed that the diverticulum described in his case had been caused by pressure exerted on the urethra by a large inguinal hernia. Since the diverticulum in case 1 developed in a known abscess cavity, it may definitely be placed in that subheading of Watts's classification.

The cause in case 2 is more obscure. The urethra was exposed to the same trauma and infection, that is transurethral resection, with its usual postoperative infection and dilatation, as was that in case 1. That the patient had a small abscess in one of the glands of Littré which escaped detection is entirely possible, since he did have to have an indwelling catheter after his two resections. Also a small tear in the urethra from the resectoscope, or the passing of sounds, with subsequent weak spots is possible. In either event, the penis clamp created the mechanical obstruction necessary to expand the weak spot. Exact classification of the cause in this case must remain doubtful.

The length of time required to create a clinically recognizable diverticulum might be explained as follows:

1. By individual variations of the strength of the tissues.
2. By the size of the original defect.
3. By pressure of the urinary stream from above.

In the first case, the bladder was of normal tone. It created a stream of good force, exerting a much greater pressure on a known larger defect; hence the rapid development of this diverticulum. In the second case, in contrast, there was a bladder of very low tone and the pressure created was minimal.

Certainly one would imagine that a penis clamp would be more obstructive than the lip of a rubber urinal pressing on the urethra, but the misfit of the latter contrivance as worn by the first patient was certainly equally obstructive. The patient did not need a rubber urinal, as was indicated in his case history, but insisted on wearing it.

As the literature in general agrees, operative intervention is the only cure. Operation was chosen in the first case because the diverticulum was the only source of incontinence. Surgery promised a cure and this contention was subsequently borne out.

In the second case the bladder and the bladder neck indicated a true incontinence with a possible neurogenic background, so it was decided, as stated previously, that the removal of the diverticulum would not be of benefit. Further studies on this patient were not carried out during this hospital stay, and the patient has not been seen in consultation since that time.

1757 David Whitney Building.

THE PROMOTION DEPRESSION

NORRIS B. FLANAGAN, M.D., BOSTON

Much interest has recently been centered on the psychologic effects of the war. The stimulus for this interest seems to rise from two sources: (1) the academic—what are the theoretical factors which cause psychologic illness in response to the stresses of war? and (2) the practical—how can psychologic medicine be utilized to increase the total efficiency of our war effort?

Although there has been much talk about anxiety, neurocirculatory asthenia and so on, I have seen no reference to the entity Adolf Meyer termed "the promotion depression." By this term I understand him to mean a depressed state resulting from a sudden and overwhelming increase in responsibility in a situation similar to that usually met when an individual obtains a promotion in his place of employment.

4. Carlton, C. H.: Diverticulum of the Male Urethra with Suggestion as to Its Origin, Brit. M. J. **1**: 376-377 (Feb. 27) 1932.

REPORT OF CASES

While it is not my intent at this point to settle or even quibble about the more fundamental etiologic aspects of depressions, I would like to call attention to three cases I have recently seen:

CASE 1.—A. P., a man aged 65, conscientious, fastidious, was chief paymaster in a ship building company for twenty-five years. In "normal times" it employed from five hundred to one thousand men; during the recent period of expansion the number rose to eight thousand. His working hours and responsibilities increased, but his staff of assistants increased proportionately. There had been no complaint from his superiors about his work. He, however, became depressed and expressed the idea that the added responsibility caused his depression. His mental content centered about ideas of being inadequate in his work. His physical symptoms were anorexia, insomnia and moderate loss of weight. His past history is relevant in that he had had a similar depression in 1931, when finally, after many years, he had been promoted to chief paymaster.

CASE 2.—M. O., a man aged 45, a conscientious, careful worker, was chief maintenance man in charge of carpenters in a coastwise steamship company for twenty-two years. The company had recently been dissolved, but he was immediately reemployed as a foreman in charge of the construction of a tanker. After three days on the new job he became depressed. He considered himself inadequate and thought he would never be able to work again. His physical symptoms consisted in early morning waking (3 or 4 o'clock), anorexia, impotence and the loss of 12 pounds (5.4 Kg.). There had been no previous history of depression.

CASE 3.—L. D., a man aged 55, a very particular and reliable employee, had taught bookkeeping and accounting in a private business college for eighteen years. Decreased enrolment in the school as the result of Selective Service required that he take on new and unfamiliar courses. While studying to prepare himself for the new work he became depressed. His mental content centered about ideas of being incompetent, inadequate and failing to do his job. There also were suicidal ideas. His physical symptoms included anorexia, insomnia and loss of weight. After a period of hospitalization for six weeks he recovered and was able to adjust to a more routine accounting job.

COMMENT

All three patients show certain common features. The personality of each might be summed up as belonging to the obsessive-compulsive type; that is, each was overconscientious, reliable, fastidious in dress and personal habits, and took responsibility seriously. The precipitating situation in each case was a sudden increase in responsibility, in the first 2 cases directly connected with the war effort and in the third indirectly related to it. The reaction, a depressed state, was common to all 3.

It might therefore be concluded that, although it is just to "reward" a faithful and conscientious employee by a "promotion" (or, more accurately, a sudden overwhelming increase in responsibility), in certain instances the action may be quite unwise in these urgent times. An employer naturally tends to assign this type of man to the more responsible positions in rapidly expanding factories and shipyards. I should like, however, to hazard the guess that very few of those employers belong to this personality type; more, that they are employers by virtue of the fact that they do not. By definition, a "boss" must be one who can delegate his work and not feel compelled to do it all himself. Since this overconscientious, meticulous type of personality is easily recognized, even by those psychiatrically untrained, this simple psychodynamic observation might be advantageously heeded by company physicians and the lay personnel departments of our industrial plants in the internal organization of their companies and in the placement of employees.

270 Commonwealth Avenue.

COMPOUND FRACTURES

A REPORT OF TWENTY CASES IN WHICH SULFONAMIDE DRUGS WERE USED LOCALLY ALMOST IMMEDIATELY AFTER INJURY

CHARLES J. FRANKEL, M.D., AND ROBERT V. FUNSTEN, M.D.
CHARLOTTESVILLE, VA.

Since the advent of the sulfonamide drugs, infections in compound fractures have sharply decreased. In 1940 we[1] were able to report a large series of cases treated with careful débridement, meticulous cleansing and flushing with isotonic solution of sodium chloride and closure. Our results were seemingly satisfactory. When the local application of sulfanilamide was added to the routine treatment our results were further improved.[2] Caldwell[3] in 1941 called our attention to the all important first moment when he advocated the immediate dusting of the wound with either sulfanilamide or sulfathiazole powder.

During the last twelve months there have been treated at the University of Virginia Hospital 28 compound fractures of long bones; 20 have had adequate follow-up to warrant reporting.

There were 14 fractures of the tibia and fibula, all at the junction of the middle and lower third, 6 fractures of the humerus, 2 of the radius and ulna and 1 of the femur.

One case, a fracture of the humerus, ended fatally six hours after operation. One other humerus was so badly injured as to require amputation, as was 1 tibia. These cases are omitted from the series.

All the patients were seen within the eight hour safe period except the 1 whose femur was fractured, who was brought to the hospital about twenty-four hours after the onset.

Only 2 of the patients were children.

Since all the compound fractures of ward patients are handled by a changing house staff, supervised by a resident, it was found necessary to formulate a compound fracture routine which we insist on being followed minutely.

The most important parts of the routine are as follows: 1. Immediate splinting is done. 2. The wound is sprinkled generously with sulfanilamide or sulfathiazole or a combination of the two. 3. Treatment for shock is instituted. 4. In the operating room a rigid technic of thorough débridement and flushing is followed. Care is taken to discard dirty instruments and drapes before repair is undertaken. 5. Wounds are closed only if they have been seen before or during the eight hour safe period and if no tension is present. 6. Sulfanilamide or sulfathiazole is sprinkled about the wound before closure. 7. After reduction a snug plaster is applied.

Several of the patients lost so much skin that closure was impossible. We have not as yet resorted to immediate skin grafting as advocated abroad. Instead we have followed Trueta's suggestions. When sufficient granulation tissue has formed, we use multiple pinch grafts.

We have been gratified to find that no infection developed in 28 cases. There was no gas or tetanus infection. Nonunion occurred in 1 case. This was a compound comminuted fracture of the humerus in a patient who caught his arm between two freight cars. Much of the bony substance and soft tissues were left at the scene of the accident. Amputation was advised, but the patient refused. Accordingly, he was treated by the Trueta method. At the present time he has a good cosmetic result. With the aid of a brace he can use his arm for minor functions.

All the tibias healed, the period of union varying from sixteen to forty weeks. Despite frequent reports of healing of fractures of the middle third of the tibia in six to eight weeks, we have never been that fortunate. Our closed reductions of simple fractures of the tibia in that area frequently require about sixteen weeks or more.

We do not advocate a general use of closure of compound fracture wounds in war surgery, but we see no reason for adopting any hard and fast method to cover all occasions. There will be many injuries suffered in isolated engagements in which compound fracture wounds can easily be closed. Certainly there is ample evidence from civilian clinics to show that meticulous care, plus chemotherapy locally and orally, can allow one to close most compound fracture wounds with impunity.

From the Department of Orthopedic Surgery, University of Virginia Hospital.

1. Funsten, R. V., and Frankel, C. J.: Compound Fractures, U. S. Nav. M. Bull. **38**: 494 (Oct.) 1940.
2. Frankel, C. J.: Compound Fractures, Virginia M. Monthly **68**: 483 (Aug.) 1941.
3. Caldwell, G. A.: Orthopedic correspondence with the authors, January 1942.

SUMMARY

Twenty cases of compound fractures treated by a carefully planned routine, and closure where possible, showed no infection and only 1 nonunion. Eight other cases not reported likewise showed no infection.

The use of sulfanilamide or sulfathiazole sprinkled into the wound at the scene of the accident or on admission to the hospital is a valuable addition to the routine.

THE PREEMINENT IMPORTANCE OF CLINICAL SIGNS IN THE DIAGNOSIS OF INTESTINAL OBSTRUCTION IN EARLY INFANCY

HAROLD STADLER, M.D., IOWA CITY

In making a diagnosis of partial intestinal obstruction in infants, radiographic and fluoroscopic barium sulfate studies are helpful. Evidence from such studies is not always conclusive, however. My purpose in this report is to illustrate that the gastrointestinal tract may appear normal by visualization methods even when clinically demonstrable partial obstruction is present. Two cases are cited:

REPORT OF CASES

CASE 1.—M. K. was born on March 12, 1941; her birth weight was 7 7/10 pounds (3,490 Gm.). She did well for six days and then began to vomit frequently. The stools had changed from the meconium type, and five yellow ones had been passed. The vomiting progressed in severity and persistence, and the vomitus became bile stained. When she was 7 days old one apparently normal bowel movement occurred. Subsequently peristaltic waves were observed to pass from left to right in the gastric area and from right to left just below the umbilicus. The next day no radiologic evidence of obstruction was found when barium sulfate was introduced into the stomach and its course was observed fluoroscopically. However, it was believed that the vomiting together with visible peristalsis constituted probable evidence of obstruction, and so exploratory laparotomy was performed on March 22. The peritoneum was opened under local anesthesia through a right rectus incision. A moderate amount of free peritoneal fluid was present and the stomach was much dilated. An abnormal condition was noted in the duodenal area. The relationship between the structures in the region was unusual, with alteration in the customary course of the duodenum; the exact nature of the abnormality could not be determined without incurring risk of damage to blood vessels. There appeared to be a zone of constriction in the region of the transverse mesocolon. Posterior gastroenterostomy was performed, and the infant's postoperative course was uneventful.

CASE 2.—N. Z., born Dec. 14, 1940, weighed 7½ pounds (3,400 Gm.) at birth. With difficulty he was fed at the breast for two weeks. Vomiting was frequent and it became progressively more severe. Occasional feedings were retained only to be vomited with subsequent feedings. The vomitus later contained bile and fecal material. On December 23 barium sulfate studies were made, with essentially negative results. The infant's condition became worse from day to day, and the vomiting was unabated. An intestinal pattern became apparent and peristaltic movements were seen. Exploratory laparotomy was performed on December 29. In the region of the transverse colon a portion of the bowel was found to be contracted. The infant's condition was too critical to permit detailed examination, so a double barreled colostomy was done.

COMMENT

A possible explanation for the findings in these 2 cases is that despite the partial obstruction it was possible by means of vigorous peristalsis for the barium sulfate to be pushed beyond the point of stoppage in quantity sufficient to produce what appeared to be a normal status in the radiologic exami-

From the Department of Pediatrics, State University of Iowa College of Medicine.

nation. The hyperactive peristalsis, visible through the abdominal wall, together with the persistent vomiting, constituted excellent evidence for obstruction. Under such circumstances one would be forced to accept the clinical evidence as unequivocal, even though the radiologic evidence is lacking.

SUMMARY

The two cases cited relate to infants with partial intestinal obstruction. In 1 patient the site of obstruction was high, whereas it was low in the other infant. In both instances the blockage was incomplete, yet the clinical evidence for the diagnosis seemed conclusive. Radiologic studies of the intestine in each instance failed to show any abnormality. Diagnoses were substantiated in each by an exploratory laparotomy. There is a possible explanation for the discrepancy.

Special Articles

THE COCOANUT GROVE DISASTER IN BOSTON

A PRELIMINARY ACCOUNT

N. W. FAXON, M.D.
AND
E. D. CHURCHILL, M.D.
Director and Chief, Respectively, of the West Surgical Service of the Massachusetts General Hospital
BOSTON

The Cocoanut Grove fire started about 10:15 p. m. Saturday, Nov. 28, 1942. The restaurant was crowded with people celebrating the victory of the Holy Cross football team over that of Boston College. Newspaper accounts estimate a crowd of 1,000. On December 6 the official count of the dead reached 498. The dance floor of the main dining room had been cleared for the start of the floor show. Most of the patrons were seated at their tables or crowded in the bar and cocktail lounges.

The first patients arrived at the emergency ward of the Massachusetts General Hospital at 10:30 p. m. Shortly thereafter the hospital was notified of the disaster and asked to be ready to receive a large number of patients. The hospital organization set up under Civilian Defense for the handling of air raid casualties had already been set into operation. The house staff and nurses on duty were called to the emergency ward. The staff teams for burns and resuscitation were summoned. Nurses, social workers and others were notified. By 11:15 approximately the entire organization for the handling of these cases had been assembled. Additional staff and other personnel continued to report up to midnight.

The emergency ward rooms were immediately cleared of all other patients and evacuation of the sixth floor of the George Robert White Building holding 40 beds was begun. Approximately 30 surgical patients, many of them postoperative, were removed in their beds or on foot, if their condition allowed, to other wards.

By 1:30 a. m. 39 casualties had been assembled in beds in the ward. By 1:45 the burns of all patients, as far as shock and asphyxia would permit, had been completely dressed, shock was adequately treated, and asphyxiated patients were receiving oxygen therapy.

RECEPTION

Dead and Living Patients.—Between 10:30 p. m. and 12:45 a. m. 114 casualties were received in the emergency ward; 75 were either dead on arrival or died within five to fifteen minutes after entering the door. It has been impossible to obtain accurate figures regarding the number that showed some signs of life at entrance as contrasted with those definitely dead. No patient that lived long enough (fifteen minutes at a maximum) to have resuscitation measures applied died during the first twelve hour period.

The Dead.—Seventy-five casualties are classified as dead on arrival. Two members of the house staff examined each body on arrival before death was pronounced. The bodies were then routed directly to an emergency morgue established in a large room known as the Red Brick Corridor. They were placed on the floor and covered with sheets. Some of the dead showed no burns; they had obviously been asphyxiated. Many showed the cherry red color of carbon monoxide poisoning. Others showed burns but death from asphyxia. A few were badly burned, one to such an extent that recognition would have been difficult.

Identification of the dead was started at once and all but two of the men were identified by 5 a. m. Cards, letters and driving licenses made this comparatively easy. One of the unidentified was a waiter who in changing his clothes had left the contents of his pockets in his street suit.

None of the women had anything on their persons which permitted immediate identification. Their outer coats had been deposited in check rooms and they had become separated from their purses and bags. A description of each woman was assembled, detailing clothing, shoes (usually absent), jewelry, height, weight and color of her hair. This proved to be of slight assistance, and identification was made mostly by inspection of the bodies by relatives and friends. This suggests the recommendation of a standard method of identification for women by bracelet, anklet or some similar method.

Identification of all bodies was completed by Thursday, December 3, five days after the disaster.

The Living.—On arrival the 39 living patients showed in addition to their injuries the effects of fright, cold and exposure. Clothing was dripping wet. Rectal temperatures as low as 94 F. were recorded. Exposed surfaces were grimy with smoke and burned surfaces blackened. The majority were quiet and cooperative. Some were stuporous. Others were distinctly maniacal, requiring three or four attendants to restrain them. In some instances this was due to hysteria, in others to cerebral anoxia. There was little or no evidence of intoxication. The odors of the fire made it impossible to detect alcohol on the breath. Most patients vomited during the first two or three hours. The vomitus was pungent with acid, in some instances smelled of alcohol, and was composed of partially digested food.

IMMEDIATE MANAGEMENT OF PATIENTS

Wet clothing was removed. Burned surfaces (except the face) were covered with sterile towels. Every patient received an immediate subcutaneous injection of morphine sulfate ¼ grain (0.016 Gm.). A solution was made by dissolving a large number of ¼ grain hypodermic tablets in an equal number of cubic centimeters of sterile water. This was placed in a large syringe and a single needle employed.

Surface Treatment of Burns.—Thirty of the 39 patients had sustained burns of clinical significance; 9 had minimal second degree burns or no surface burns at all. Many of these later showed pulmonary damage.

The burns were treated by a single method. There was no cleansing or débridement. (One patient only

with a second degree burn had superficial cleansing with soap and water to remove carbon from the hands and the face.)

The burned surfaces were covered with fine mesh gauze impregnated with boric ointment. Gauze, sterile mechanics' waste and cotton roller were utilized to form a bulky dressing. This was compressed snugly with elastic bandage to form a pressure dressing. Splints of folded newspaper, as suggested by the Red Cross, were used for the forearms and hands.

The eyes were examined by a resident from the Massachusetts Eye and Ear Infirmary. Seven patients had lesions involving the lower half of the cornea; 5 per cent sulfathiazole ointment was applied and atropine drops were instilled. All eyes were reexamined at 10 a. m. and the corneal lesions evaluated with fluorescein. The sulfathiazole ointment was reapplied.

Plasma.—In December 1941, immediately following the attack on Pearl Harbor, the hospital purchased 200 units of Sharp and Dohme dried plasma. This was held in reserve and not used in the present emergency.

April 1, 1942 a blood and plasma bank was organized. On the night of the disaster 391 units (250 cc. each) of frozen plasma was on hand and in addition 38 flasks (500 cc.) of whole blood. Sixteen units of plasma was started melting. The first plasma was administered at 11:30 p. m. It is estimated that the patients had received 200 to 500 cc. of saline solution by that time. Further batches of plasma were prepared as the need was apparent. By 1 a. m. all patients in shock were receiving plasma.

In the first twenty-four hours following the disaster 120 units of frozen plasma was used on 33 patients (an average of 3.6 units per patient). In the first seven days a total of 141 units was administered. In the first seven days sixteen whole blood transfusions were used for patients with reduced oxygen capacity of their blood. Three members of the house staff, two student interns and three nurses staffed the blood bank; three house staff members supervised plasma administration in the ward. Approximately 33 of the 39 patients received plasma in quantities of 1 to 12 units per individual. The largest quantity given to a single patient in the first twenty-four hours was 9 units.

Low blood pressure was the first indication used for plasma administration. As the burns were dressed, surface areas were estimated and used as a further indication. Hematocrit determinations were available at 3 a. m. as an accurate guide to plasma requirement.

In certain instances difficulty was encountered in carrying out the usual intravenous technics. Irrational and maniacal patients dislodged the needle. Transfer from the emergency ward to the sixth floor resulted in displacement of the needle in a few instances. As many as three intravenous sets were required in a few cases to overcome the difficulties presented by small contracted veins. Extensive burns of the extremities limited the sites available for injection.

It is suggested that a wider use of intrasternal infusion might have been advantageous. For patients requiring restraint and during the dressing of extremities, use of the intrasternal route might have proved very helpful.

Laboratory.—Hematocrit and serum protein determinations to guide the administration of fluids and plasma were available at 3 a. m. The highest initial hematocrit reading was 58, the lowest 40. Repeated examinations were recorded at 5 a. m., 10:30 a. m., 4 p. m. and 8 p. m. The highest hematocrit recorded was 65, a woman with extensive surface area burns, still surviving. On Monday four separate determinations were recorded, on Tuesday two, on Wednesday one.

Intake and output have been recorded and all urine specimens preserved for examination.

All temperatures have been rectal.

Other laboratory examinations have been carried out according to the needs of the individual patients. Oxygen and carbon dioxide content of arterial blood, oxygen capacity, nonprotein nitrogen, prothrombin times, blood chloride, phosphorus and sodium and several other determinations have been informative.

Electrocardiograms and vital capacity demonstrations have been done.

Specimens of blister fluid have been aspirated at the time of dressings as well as on entrance. These are being studied chemically and bacteriologically. It is significant that high levels of sulfadiazine are being recorded in this fluid.

Deaths in the Hospital.—Seven of the 39 living patients have died. The time of the disaster (10:15 p. m., Nov. 28, 1942) is taken as the base line. The deaths occurred as follows:

From 0 to 12 hours, 0.
From 12 to 24 hours, 1.
From 24 to 36 hours, 3.
From 36 to 48 hours, 1.
From 48 to 60 hours, 1.
From 60 to 72 hours, 1.
Subsequently (1 week), 0.

CASE 1.—Burns of face, hands, arms, leg. Inhalation of flame and fumes. Profound anoxia. Oxygen therapy from admission. Died at 11:38 a. m., November 29.

CASE 2.—Burns of face and hand. Inhalation of flame and fumes. Tracheotomy. Died at 10:16 p. m., November 29.

CASE 3.—Burns of face, scalp, hands. Inhalation of flame and fumes. Laryngeal obstruction. Tracheotomy. Died at 1 a. m., November 30.

CASE 4 (wife of patient 1).—Burns of face, hands, chest and back. Inhalation of flame and fumes. Tracheotomy. Died at 1:04 a. m., November 30.

CASE 5.—Burns of face and hands. Inhalation of flame and fumes. Died at 4:20 p. m., November 30. Autopsy.

CASE 6.—Burns of face, hands, scalp, back. Inhalation of flame and fumes. Tracheotomy. Died at 6:05 a. m., December 1. Autopsy.

CASE 7.—Burns of face, hands, arms, back. Carbon monoxide. Inhalation of flame and fumes. Died at 1:48 p. m., December 1. Autopsy.

One week from the disaster 6 patients remain on the danger list. Four of these are seriously ill. One has minimal burns but shows extensive and possibly permanent damage to basal ganglions from carbon monoxide. Of 6 tracheotomy patients, 2 are living.

Chemotherapy.—Two Gm. of sulfadiazine was given intravenously at 2 a. m. to all patients, including those without surface burns. This was repeated at 10 a. m. Thereafter those able to take the drug by mouth received 1 Gm. every six hours. Patients unable to take the drug by mouth received further intravenous medication at 12 noon, at 9 p. m. and every twelve hours thereafter. Blood levels of 5 to 10 mg. per hundred cubic centimeters have been established, the average being 7 mg.

All patients were skin tested with globulin tested serum before antitetanic serum was administered. No positive reactions were observed. Three thousand units

of antitetanic serum was given except to Army and Navy personnel, who presumably were protected by recent toxoid injections, and 7 patients with serious pulmonary lesions to whom an increment of bronchospasm might have been immediately fatal.

On the evening of the sixth day all patients with a rectal temperature sustained at 101 F. or above received 5,000 units of penicillin in 5 cc. volume administered intramuscularly. This dosage was continued at four hour intervals.

Aseptic Technic and Dressings.—All personnel in contact with the patients on admission or admitted to the ward have been gowned and masked. Friends and relatives have been limited to one a day for patients on the danger list, and even these were admitted only after the second day. Patients who have become ambulatory and left their bedside to talk with another patient have been masked. Priests and clergy, lay visitors, visiting doctors, nurses, housekeeping personnel, all have cooperated in these rigid precautions. No patient has left the floor for x-ray or other examination. Before sweeping, the floor has been moistened.

A solarium has been converted into a dressing room. The floor was scrubbed with strong antiseptic solution, an operating table was installed and the windows were boarded for blackout requirements. Dressings are done with complete aseptic technic. One assistant removes the outer bandages. Others remaining uncontaminated change and reapply the inner dressings. The number of onlookers has been kept at a minimum.

Bacteriology.—Bacteriologic studies are available on 30 patients and will be reported later.

It is apparent that the danger of staphylococcic contamination both of lungs and of burned surfaces has been widespread. Suppuration to date is minimal. No bacterial pneumonia has occurred. Coagulase positive staphylococci have been recovered from the bronchi of all the patients examined post mortem.

X-Ray Examinations.—The incidence of pulmonary complications made it desirable to record progress by frequent radiologic examination of the chest. At 10:30 a. m. Sunday all patients were examined. Since that time films have been taken twice a day of the patients showing pathologic changes. Films taken on inspiration and expiration have been particularly informative in demonstrating obstructive emphysema.

Pulmonary Complications.—A full evaluation of the pulmonary complications must await definitive evidence regarding the nature of the products of combustion that were released by the fire. Whether a preponderance of one specific noxious gas can be established remains to be seen. Both nitrous dioxide and phosgene have been suggested.

AID BY THE SOCIAL SERVICE DEPARTMENT

The superb aid supplied by the Social Service Department represents a chapter in itself. It helped in a variety of ways in the hospital when people were needed who knew the hospital, its personnel and the function of the various departments, who were disciplined by experience in dealing with people emotionally disturbed and in technic of interview and who knew quickly at what point it was necessary to get administrative sanction for action.

Those members of the Ladies' Visiting Committee and War Service who came in to volunteer were valuable because they were people of poise and they knew the hospital. This last is essential for most volunteer service in a disaster. This we have proved.

Two other groups of volunteer service which met these qualifications should also be noted: One, a group of Harvard undergraduates who had been doing volunteer service as orderlies for over six months, some of whom were on service that night and others who came to the hospital on learning of the need. They knew the hospital. The other, a group of Red Cross nurses' aides, most of whom had been trained at the hospital, who came in on Sunday and following days to release nurses from other wards, so that a constant nursing staff of twenty was kept on eight hour duty, or sixty each twenty-four hours, in White-6.

As an example of the need for trained social service and volunteer assistance, consider the information desk at the front door. The following problems were of pressing importance: (1) people inquiring about casualties; (2) people offering volunteer service; (3) people asking to be blood donors; (4) calls for listing of casualties from Civilian Defense Headquarters and the Red Cross; (5) calls from telephone operators in other cities and telegrams inquiring about the casualties; (6) doctors and reporters asking to see the injured and inquiring about identification of the dead.

In addition, social service took over the enormous task of interviews with relatives both of the injured and of the dead. It has rendered invaluable assistance in the ward, freeing the medical and nursing services for urgent duties with the patients.

GENERAL COMMENTS AND LESSONS LEARNED

1. The value of a well planned and organized telephone service to notify hospital administration, staff, nurses, maintenance and department heads was especially emphasized. Ours functioned but can be much improved. Too much thought and planning cannot be given to this service.

2. The necessity of the immediate examination and separation of living and dead at the very entrance of the hospital was realized only after a number of dead had been admitted to the emergency ward. At once two medical house officers were stationed at the emergency ward entrance for this purpose. This is important, and two men should collaborate.

3. The organization and division of staff and nurses into teams for the undressing of patients, the care of clothes and valuables, the administration of morphine, treatment of shock, dressing of burns and wounds, oxygen therapy and surgical procedures such as tracheotomies proved their worth.

4. The importance of concentration of casualties in one group where they can be under concentrated medical treatment and isolation procedures can be set up if needed was clearly demonstrated in this disaster.

A further interesting problem was presented by the abrupt and unexpected confinement in the hospital of 39 seriously injured people of private patient status. Isolation precautions were considered imperative, so anxious families and friends had to be reckoned with. Many requests were received for transfer to a private ward, for special nurses and for private surgical and medical care either at the hospital or in other institutions. The policy was immediately announced that visits from family doctors or consultants at the request of patient or family would be welcomed. Wholehearted cooperation by the local medical profession was received. Doctors visited their patients, reassured them and told them under no condition to consider removal. Medical information that might have a bearing on their present condition was gratefully received by the staff.

It was the mature judgment of those responsible that the facilities mobilized for the examination and treatment of the injured were equal to or better than those that could be provided in private care. This overruled all financial considerations and personal wishes of families and friends.

The late (twenty-four hour) appearance of respiratory lesions in the apparently uninjured demonstrated in this disaster the wisdom of hospital treatment for every one until the pattern of the trauma was fully disclosed.

Medical officers from both the Army and the Navy were, of course, desirous of transferring their injured to military hospitals. Full cooperation was attained in doing this only when consistent with the welfare of the patient.

5. One important defect in the casualty organization appeared in an unexpected quarter. It was impossible for those responsible for the care of the survivors to secure adequate information regarding the character of the trauma. The predominant clinical pattern of flesh burns and severe damage to the respiratory tract was apparent by 1 a. m. An inquiry was directed to authorities, but no information regarding the disaster could be obtained. The question of poisonous fumes was immediately raised, but definitive evidence on this point is still lacking.

Catastrophe organization might well include experts assigned to the scene of disaster to determine the nature of the trauma, the presence of noxious fumes and so on, not solely to fix the responsibility from a legal standpoint, but to aid in the treatment of casualties.

Examination of the dead by competent pathologists might well begin immediately and their findings communicated to clinicians.

Autopsies on those dying after clinical appraisal of symptoms are particularly desirable, not only for scientific purposes but to give immediate assistance in the treatment of the living.

6. For the handling of the dead an emergency morgue should be selected in advance, attention being paid to accessibility, windows for ventilation and cooling, and isolation. It should be placed in charge of some responsible person and a police guard obtained as soon as possible. Only persons bearing passes acceptable to the person in charge and to the police should be admitted. The bodies should be arranged in orderly fashion, heads in the same direction and sexes separated, if possible, covered with sheets. Tags numbered consecutively (M. G. H. 1, 2, 3, and so on) bearing the date and the hour of arrival should be attached to the wrist.

The medical examiner or coroner should be consulted as soon as possible and his directions followed. If he so directs, identification of the dead may be carried out. In every instance pocketbooks, letters and the like by which documentary identification is made should be returned to pockets. No jewelry should be removed. If the medical examiner so directs, however, a complete list of all valuables can be made by two persons, one preferably a police officer, the valuables placed in an envelop, signed by the two persons, and placed in a safe.

For corroboration and personal identification, only one group at a time should be admitted. The name, address and relationship of the identifying person should be entered on a numbered tag. No valuables or body should be released without written consent of the medical examiner or the coroner.

An official count and list of the identified dead should be made as quickly as possible and given to police and press.

7. A list of the living, giving name and address, was available by 3 a. m. and given to police and press and was of great value in giving that information to anxious relatives.

8. It is desirable to obtain police assistance speedily to control yard traffic and to guard the hospital corridors and the morgue.

9. The serving of coffee and sandwiches by the dietary department and the Red Cross was valuable in sustaining the energy and morale of workers and comforting waiting relatives and friends.

10. The need for a hospital organization for the handling of emergency disasters and the collection of an ample quantity of emergency supplies is obvious. Thanks to the efforts of the Civilian Defense, we had been made "catastrophe minded." Owing to practice mobilization and widespread information regarding disaster management, every one performed his duties without orders. Although during the first two hours everything seemed to be in confusion because of the numbers of people scurrying about, it was obvious to those responsible for organization that every one was acting rapidly, efficiently and intelligently. Furthermore, the quantity of supplies on hand proved adequate and no shortage of anything was experienced.

"An emergency anticipated and prepared for ceases to be an emergency."

HANDBOOK OF NUTRITION: XI

THE WATER SOLUBLE VITAMINS

C. A. ELVEHJEM, PH.D.
MADISON, WIS.

These special articles on foods and nutrition have been prepared under the auspices of the Council on Foods and Nutrition. The opinions expressed are those of the authors and do not necessarily reflect the opinion of the Council. These articles will be published later as a Handbook of Nutrition.—ED.

This group of dietary factors is classified as the water soluble vitamins because, like all vitamins, they are required by the body in extremely small amounts and because the individual chemical compounds are soluble in water although the degree of solubility may vary greatly from the sparingly soluble riboflavin to the readily soluble ascorbic acid. These are the only characteristics common to the individual components because their functions in the living cell may differ greatly and their chemical structures may vary from the simple configuration of nicotinic acid to the more complicated molecular structure of thiamine and riboflavin. Based largely on the source material used in early isolation work and the kind of experimental animal employed for the assay, the water soluble vitamins are generally subdivided into the B vitamins and vitamin C, together with related factors.

No attempt will be made to cover in this short summary the vast amount of literature which is accumulating on the water soluble vitamins. A symposium entitled "The Vitamins" published by the American Medical Association in 1939 includes a detailed survey of the facts known at that time. Therefore this chapter will include only a general summary of the more sig-

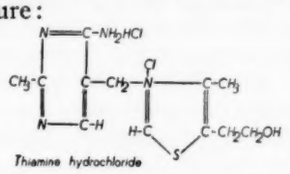
From the Department of Biochemistry, University of Wisconsin.
Dr. Paul L. Pavcek helped in the preparation of this manuscript.

nificant facts, and reference will be made to original papers only when they have been published within the past few years. Since this review will stress the nutritional aspects of these vitamins, the description of the clinical aspects of these deficiency diseases will of necessity be limited.

The B complex now is known to consist of at least a dozen separate factors, nine of which can be obtained in crystalline form. Each factor will be discussed separately and in more or less chronological order of its recognition and identification.

THIAMINE

Thiamine hydrochloride is a white crystalline substance readily soluble in water and possessing a nutlike and salty taste and a yeastlike odor. The empirical formula is $C_{12}H_{18}N_4OSCl_2$ and the compound has the following structure:



Thiamine hydrochloride

It is rapidly destroyed in neutral or alkaline solutions because of hydrolytic cleavage into its constituent pyrimidine and thiazole rings, but in acid solutions it can be sterilized for half an hour at 120 C. without appreciable loss of activity. In the dry form the vitamin is very stable, and it is not readily destroyed by oxidation. Its activity is rapidly destroyed by sulfite, a fact which may explain the loss of thiamine during the sulfuring of fruits.

In foods and in tissues it occurs both in the free form and as thiamine pyrophosphate or cocarboxylase. In the latter form it functions in the living cell as a coenzyme in carbohydrate metabolism. In a thiamine deficiency the metabolism of carbohydrate is incomplete and pyruvic acid accumulates in the tissues, a condition which is used clinically in determining thiamine insufficiency. Many of the symptoms which have been observed in beriberi may be related to faulty carbohydrate metabolism, although it is still difficult to differentiate an uncomplicated thiamine deficiency from multiple deficiencies. Some of the nerve lesions which have been described in experimental animals suffering from polyneuritis are certainly related to a deficiency of riboflavin, but there is also good evidence that a lack of thiamine may directly cause neuropathologic changes.

The variety of symptoms seen in the human being has been summarized by Spies and Williams [1] and by Jolliffe.[2] Wilder [3] has pointed out that the type of symptoms which develop depends to a considerable extent on the rate at which the deficiency develops, but in all cases the subjects become depressed, irritable, quarrelsome, uncooperative and fearful. An anemia of the hyperchromic type has also been described in a number of thiamine deficient patients.

Although the official method for the estimation of thiamine is the rat assay procedure described in the U. S. P. XI, 1939 Supplement, both the thiochrome and yeast fermentation methods are suitable for most foods. The latter methods have the advantage that they can be used for substances of low thiamine content. Only a few foods can be classified as rich sources of thiamine; they include peas, beans, oatmeal, whole wheat, lean pork and peanuts. However, one must not overlook the staple foods such as milk, vegetables and fruits, which may contribute appreciable amounts of thiamine in the diet although the amount per unit of weight is relatively low.

The Food and Nutrition Board of the National Research Council recommends 1.5 to 2.3 mg. as the daily thiamine allowance for the average adult man. The minimum daily requirement as established by the U. S. Food and Drug Administration is 1 mg. The requirement is increased in periods of active growth and during pregnancy and lactation. Pathologic conditions such as fevers and hyperthyroidism, in which there is a general increased metabolism, also increase the requirement. The effect of external temperature on the thiamine requirement of young rats has been reported by Mills,[4] who found the need per unit of food to be twice as high at 91 F. as at 65 F. Mills [5] also discusses the relation of these findings to the resistance of persons living in the tropics.

TABLE 1.—*Vitamin Content of a Few Typical Foods*

Food	Thiamine	Riboflavin	Nicotinic Acid	Pantothenic Acid	Pyridoxine
	Milligrams per hundred grams (edible portion)				
Apples	0.025	0.050	0.500	0.050	.....
Bananas	0.040	0.080	0.600	0.070	.....
Bread:					
white (unfortified)	0.070	0.100	0.800	0.400	0.300
white (fortified)	0.280	0.14	1.500	0.400	0.300
Cabbage	0.060	0.050	0.290	0.225	0.290
Carrots	0.050	0.100	1.500	0.210	0.190
Cheese	0.030	0.500	.....	0.350	.....
Cornmeal	0.200	0.150	1.500	0.800	.....
Eggs	0.250	0.400	0.050	2.700	.....
Meats:					
Beef	0.150	0.250	6.500	1.100	0.400
Pork (loin)	1.500	0.200	9.200	1.500	0.600
Poultry (light meat)	0.075	0.060	6.100	0.800	.....
Poultry (dark meat)	0.100	0.250	7.300	2.000	0.200
Calf's liver	0.4	3.200	20.000	5.200	.....
Pork liver	0.400	2.700	22.000	5.400	.....
Milk (whole, fluid)	0.045	0.200	0.070	0.300	0.200
Oatmeal	0.800	0.160	1.130	1.300	0.250
Oranges	0.070	0.030	0.220	0.070	.....
Peas (fresh)	0.300	0.190	0.750	0.600	.....
Peanuts	0.800	0.300	13.000	3.400	.....
Potatoes	0.125	0.060	1.160	0.400	0.160
Spinach	0.075	0.250	0.720	0.200	.....
Tomatoes	0.050	0.050	0.580	0.075	.....
Turnips	0.040	0.060	.....	0.250	.....
Yeast (brewers' dry)	12.000	4.000	40.000	20.000	5.500
Whole wheat	0.450	0.120	5.900	1.300	0.460

Diets high in fat have a definite sparing action on the requirement of thiamine in both rats and dogs. This is undoubtedly because fat metabolism does not require cocarboxylase. The human diet may rarely

1. Williams, R. R., and Spies, T. D.: Vitamin B_1 and Its Use in Medicine, New York, Macmillan Company, 1938.
2. Jolliffe, Norman: Recent Advances in Clinical Applications of the B Vitamins, J. Am. Dietet. A. **17:** 5 (Jan.) 1941.
3. Wilder, R. M.: Nutritional Problems as Related to National Defense, Am. J. Digest. Dis. **8:** 243 (July) 1941. Williams, R. D., and Mason, H. L.: Further Observations on Induced Thiamine (Vitamin B_1) Deficiency and Thiamine Requirement of Man, Proc. Staff Meet., Mayo Clin. **16:** 433 (July 9) 1941.
4. Mills, C. A.: Vitamin and Protein Requirements at Different Temperatures, Am. J. Physiol. **133:** 390 (June) 1941.
5. Mills, C. A.: Environmental Temperatures and Thiamine Requirements, Am. J. Physiol. **133:** 525 (July) 1941.

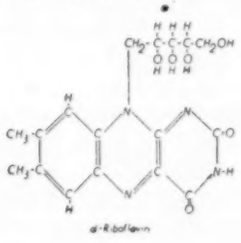
undergo sufficient change in fat content to alter materially the thiamine requirement. Cahill,[6] studying the urinary excretion of thiamine in human subjects, could find no increase when part of the carbohydrate was replaced by fat.

In table 1 is presented the vitamin content of a few typical foods. It is evident that, aside from pork, oatmeal, whole wheat, enriched bread and peas, at least five to ten servings (100 Gm.) of the individual foods must be consumed daily to meet the minimum daily requirement. Thus it is not a simple task to select a diet containing adequate thiamine without the use of whole grain cereals or enriched flour and bread. It is well known that significant amounts of thiamine may be lost during the preparation of foods because of the fact that the vitamin is readily soluble in water and easily destroyed by moist heat. Under normal conditions there is probably little destruction of thiamine in the digestive tract, although intestinal disturbance may seriously retard the absorption of this vitamin.

Recently a factor destructive of vitamin B_1 has been found in raw fish. Green, Carlson and Evans [7] observed a type of paralysis in foxes fed diets containing 20 per cent fresh carp and identified the condition as a thiamine avitaminosis analogous to Wernicke's disease. Further studies [8] on the mechanism of inactivation point to an enzymatic destruction.

RIBOFLAVIN

Riboflavin is a practically odorless, orange-yellow crystalline compound which in water solution shows a characteristic yellow-green fluorescence. The empirical formula is $C_{17}H_{20}N_4O_6$ with the following structure:



This vitamin is rather heat stable, especially in acid mediums, but extremely labile when exposed to light. In nature riboflavin may occur as such, as riboflavin phosphate or as a constituent of specific flavoproteins. These flavoproteins function as important enzymes in tissue respiration. Enzymes known to contain riboflavin include cytochrome reductase, d-amino acid oxidase and xanthine oxidase.[9] A definite reduction in the tissue concentration of the latter enzymes has been observed in riboflavin deficient animals.[10] Aside from retarded growth in young animals, other symptoms include dermatitis and cataract in rats and characteristic paralysis in chicks. A recent report by Baum, Michaelree and Brown [11] indicates that the incidence of cataract in rats is increased if the diet supplies a small amount (1 to 2 micrograms daily) of riboflavin. Phillips and Engel have shown a specific neuropathologic condition of the main peripheral nerve trunks in chicks on low riboflavin rations. Similar changes were not observed in the rat until the riboflavin deficiency was aggravated by an increased fat content of the diet.[12] Both acute and chronic riboflavin deficiency has been studied in dogs.[13] On a diet very low in this vitamin a characteristic collapse syndrome and sudden death are observed in six to eight weeks. Prolonged subsistence on a diet low in riboflavin leads to neurologic abnormalities accompanied by myelin degeneration of peripheral nerves and the posterior columns of the spinal cord. Street, Cowgill and Zimmerman [13] have shown that opacities of the cornea may occur in the dog as well as in the rat.

In man the symptoms include inflammation of the lips, fissures at the corners of the mouth, glossitis, dermatitis and vascularizing keratitis.[14] The ocular symptoms first described by Sydenstricker and his co-workers [15] appear to be very constant and may appear before other symptoms of the deficiency.

The riboflavin content of foods may be determined by measuring the growth response obtained in chicks or rats maintained on basal rations low in the vitamin, but the more rapid microbiologic method of Snell and Strong [16] is now used rather extensively. Chemical methods involving measurement of fluorescence are also being used.[17] Riboflavin is widely distributed in plant and animal materials. Liver, milk and vegetables may be considered the best and most reliable sources in the human dietary. Seeds, which are so important as a source of thiamine, are poor sources of riboflavin.

The Food and Nutrition Board recommends 2.2 to 3.3 mg. of riboflavin as the daily allowance for adult males, and the Food and Drug Administration has accepted 2 mg. a day as the minimum daily requirement. The limited values in table 1 show that one serving of liver will adequately meet the daily allowance, that 1 quart of milk will supply the minimum requirement, and that one serving of cheese or eggs will supply one fourth of the daily requirement. Sure and Dichek [18] have demonstrated, in the case of rats, that riboflavin has a pronounced beneficial effect on the economy of food utilization for the synthesis of body tissues. In this connection it is interesting to note that Murlin [19] reports the biologic value of proteins in bread is improved in the presence of extra B vitamins.

6. Cahill, W. M.: Urinary Excretion of Thiamine on High Fat Diets, J. Nutrition **21**: 411 (April) 1941.

7. Green, R. G.; Carlson, W. E., and Evans, C. A.: A Deficiency Disease in Foxes Produced by Feeding Fish, J. Nutrition **21**: 243 (March) 1941.

8. Spitzer, E. H.; Coombes, A. I.; Elvehjem, C. A., and Wisnicky, W.: Inactivation of Vitamin B_1 by Raw Fish, Proc. Soc. Exper. Biol. & Med. **48**: 376 (Oct.) 1941. Woolley, D. W.: Destruction of Thiamine by a Substance in Certain Fish, J. Biol. Chem. **141**: 997 (Dec.) 1941.

9. Hogness, T. R.: A Symposium on Respiratory Enzymes, The University of Wisconsin Press, Madison, 1942, p. 134.

10. Axelrod, A. E., and Elvehjem, C. A.: The Xanthine Oxidase Content of Rat Liver in Riboflavin Deficiency, J. Biol. Chem. **140**: 725 (Sept.) 1941.

11. Baum, H. M.; Michaelree, J. F., and Brown, E. B.: The Quantitative Relationship of Riboflavin to Cataract Formation in Rats, Science **95**: 24 (Jan. 2) 1942.

12. Shaw, J. H., and Phillips, P. H.: The Pathology of Riboflavin Deficiency in the Rat, J. Nutrition **22**: 345 (Oct.) 1941.

13. Street, H. R.; Cowgill, G. R., and Zimmerman, H. M.: Further Observations of Riboflavin Deficiency in the Dog, J. Nutrition **22**: 7 (July) 1941.

14. Sebrell, W. H., and Butler, R. E.: Riboflavin Deficiency in Man, Public Health Rep. **53**: 2282 (Dec. 30) 1938. Sydenstricker, V. P.; Geeslin, L. E.; Templeton, C. M., and Weaver, I. W.: Riboflavin Deficiency in Human Subjects, J. A. M. A. **113**: 1697 (Nov. 4) 1939.

15. Sydenstricker, V. P.; Sebrell, W. H.; Cleckley, H. M., and Kruse, H. D.: The Ocular Manifestations of Ariboflavinosis: A Progress Note, J. A. M. A. **114**: 2437 (June 22) 1940.

16. Snell, E. E., and Strong, F. M.: A Microbiological Assay for Riboflavin, Indust. & Engin. Chem., Anal. Ed. **11**: 346 (June) 1939.

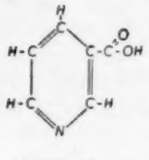
17. Hodson, A. Z., and Norris, L. C.: A Fluorometric Method for Determining the Riboflavin Content of Foodstuffs, J. Biol. Chem. **131**: 621 (Dec.) 1939. Conner, R. T., and Straub, G. J.: Combined Determination of Riboflavin and Thiamine in Food Products, Indust. & Engin. Chem., Anal. Ed. **13**: 385 (June) 1941.

18. Sure, Barnett, and Dichek, Maurice: Riboflavin as a Factor in Economy of Food Utilization, J. Nutrition **21**: 453 (May) 1941.

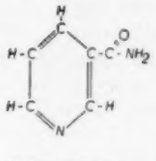
19. Murlin, J. R.; Marshall, Margaret E., and Kochakian, C. D.: Digestibility and Biological Value of Whole Wheat Breads as Compared with White Bread, J. Nutrition **22**: 573 (Dec.) 1941.

NICOTINIC ACID

Nicotinic acid occurs as white, needle-like crystals, is nonhygroscopic and stable in air and has the empirical formula $C_6H_5O_2N$. The structural formula of both the acid and the physiologically active amide are shown.



Nicotinic acid
(Niacin)



Nicotinic acid amide
(Niacin amide)

The sensation of flushing and erythema of the skin which is often observed on administration of nicotinic acid is not produced by nicotinic acid amide. Nicotinic acid is a comparatively weak acid, and its alkaline salts in solution show a slightly alkaline reaction. It is stable to autoclaving temperatures when in solution and shows no loss of activity when exposed to dry heat. Owing to numerous objections to the term nicotinic acid, niacin and niacin amide have been proposed as unobjectionable synonyms for the acid and amide.

In the body nicotinic acid functions as a component of two important coenzymes, coenzyme I or cozymase and coenzyme II, which are concerned in both glycolysis and respiration.[20] The structure of the two coenzymes is very similar, differing only in the number of phosphoric acid units. Coenzyme I is a diphosphopyridine nucleotide, and coenzyme II is a triphosphopyridine nucleotide. In nicotinic acid deficiency it is possible to demonstrate a decreased cozymase content of the liver and muscle tissue. There has been some question about the cozymase content of the blood during deficiency, but all workers[21] are now agreed that the change if demonstrable is very slight. It is thus impossible to use this method in the diagnosis of nicotinic acid deficiency.

The dog, pig and monkey are the only experimental animals that show typical nicotinic acid deficiency. Blacktongue in the dog was first described by Chittenden and Underhill, and in 1922 Goldberger and his co-workers concluded that blacktongue in dogs was analogous to human pellagra. The early symptoms of pellagra are weakness, lassitude, anorexia and indigestion, followed by sore and ulcerated mouth and diarrhea. The typical dermatitis usually simplifies the diagnosis. A more detailed summary of the symptoms has recently been made by Harris[22] and by Youmans.[23] Spies, Walker and Woods[24] have shown that infants and children also suffer from nicotinic acid deficiency in areas where pellagra is endemic, although typical lesions are seldom seen in early infancy. Nicotinic acid is now widely used in the treatment of pellagra, but its use is most successful in conjunction with other vitamins and specific natural foods.

The activity of various compounds related in structure to nicotinic acid was investigated by Woolley and his co-workers,[25] and it was concluded that only those compounds which may undergo oxidation or hydrolytic conversion to nicotinic acid are active in the dog. Since that time some activity has been observed in human beings with quinolinic acid, pyrazine 2,3 dicarboxylic acid and pyrazine monocarboxylic acid. A recent paper by Dann, Kohn and Handler[26] summarizes much of the work on these compounds, and from their results as well as results in this laboratory one may conclude that the activity of these compounds is greatly inferior to that of nicotinic acid.

Since nicotinic acid is not required preformed in the diets of chicks or rats, the dog, originally used by Goldberger and his co-workers for the assay of the antipellagra potency of foods, is the only animal that can be used with any success. Fairly accurate values can be obtained by comparing the growth response obtained by feeding a definite weight of the food with that obtained after giving a standard dose of nicotinic acid.[27] Chemical methods may be used on many foods, and an improved method has recently been described by Dann and Handler.[28] A convenient method and one which I have found satisfactory is the microbiologic method of Snell and Wright.[29] In general there is good agreement between the results obtained with the three methods except in the case of liver and kidney. The values obtained with the dog assay for these materials are somewhat higher than the values obtained by the chemical or microbiologic methods. The best sources of nicotinic acid include liver, yeast, lean meats and to a lesser extent peanuts, potatoes and vegetables.

It is difficult to establish an exact value for the nicotinic acid requirement of human beings. Balance experiments are complicated by the fact that excess nicotinic acid ingested is excreted not only as nicotinic acid but also as trigonelline and nicotinuric acid.[30] The Food and Nutrition Board has suggested 15 to 20 mg. as the daily allowance for an adult man, and the minimum requirement has been set at 10 mg. a day.

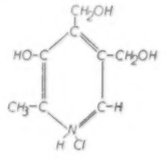
One may readily ascertain from table 1 why pellagra will develop on diets high in cornmeal and patent flour. These materials contain 1 to 1.5 mg. per hundred grams, and one would have to consume 1,000 Gm. to meet the minimum requirement, which is, of course, impossible. In contrast to corn, wheat contains 5 to 7 mg. per hundred grams and would be a reliable source of nicotinic acid if 80 to 90 per cent of the nicotinic acid were not removed during the milling process.[31] Whole oats is also low in nicotinic acid, but barley is somewhat higher. One serving of liver will supply the daily allowance, and one serving of lean meat will supply about one half of the daily requirement. One hundred Gm. of peanuts will supply the requirement. Since

20. Elvehjem, C. A.: Relation of Nicotinic Acid to Pellagra, Physiol. Rev. **20:** 249 (April) 1940.
21. Kohn, H. I.; Klein, J. R., and Dann, W. J.: The V Factor Content and Oxygen Consumption of Tissues from the Normal and Blacktongue Dog, Biochem. J. **33:** 1432 (Sept.) 1939. Axelrod, A. E.; Spies, T. D., and Elvehjem, C. A.: The Effect of a Nicotinic Acid Deficiency upon the Coenzyme I Content of the Human Erythrocyte and Muscle, J. Biol. Chem. **138:** 667 (April) 1941.
22. Harris, Seale: Clinical Pellagra, St. Louis, C. V. Mosby Company, 1941.
23. Youmans, J. B.: Nutritional Deficiencies, Philadelphia, J. B. Lippincott Company, 1941.
24. Spies, T. D.; Walker, A. A., and Woods, A. W.: Pellagra in Infancy and Childhood, J. A. M. A. **113:** 1481 (Oct. 14) 1939.
25. Woolley, D. W.; Strong, F. M.; Madden, R. J., and Elvehjem, C. A.: Antiblacktongue Activity of Various Pyridine Derivatives, J. Biol. Chem. **124:** 715 (Aug.) 1938.
26. Dann, W. J.; Kohn, H. I., and Handler, Philip: The Effect of Pyrazine Acids and Quinolinic Acid on the V-Factor Content of Human Blood and on Canine Blacktongue, J. Nutrition **20:** 477 (Nov.) 1940.
27. Waisman, H. A.; Mickelsen, Olaf; McKibbin, J. M., and Elvehjem, C. A.: Nicotinic Acid Potency of Food Materials and Certain Chemical Compounds, J. Nutrition **19:** 483 (May) 1940.
28. Dann, W. J., and Handler, Philip: The Quantitative Estimation of Nicotinic Acid in Animal Tissues, J. Biol. Chem. **140:** 201 (July) 1941.
29. Snell, E. E., and Wright, L. D.: A Microbiological Method for the Determination of Nicotinic Acid, J. Biol. Chem. **139:** 611 (June) 1941.
30. Perlzweig, W. A.; Levy, E. D., and Sarett, H. D.: Nicotinic Acid Derivatives in Human Urine and Their Determination, J. Biol. Chem. **136:** 729 (Dec.) 1940. Melnick, Daniel; Robinson, W. D., and Field, Henry, Jr.: Influence of the Excretion of Other Pyridine Compounds on the Interpretation of the Urinary Nicotinic Acid Values, J. Biol. Chem. **136:** 131 (Oct.) 1940.
31. Tepley, L. J.; Strong, F. M., and Elvehjem, C. A.: The Distribution of Nicotinic Acid in Foods, J. Nutrition **23:** 417 (April) 1942.

nicotinic acid is a very stable compound there is little destruction during cooking, and the loss is negligible unless the cooking water is discarded.

PYRIDOXINE—VITAMIN B_6

The early work on the isolation of vitamin B_6 was described in The Vitamins in 1939. Since that time the synthesis of pyridoxine has been described by Harris and Folkers [32] and it, like thiamine, riboflavin and nicotinic acid, is available in the synthetic form on a commercial basis. Pyridoxine hydrochloride is a white crystalline powder, slightly bitter in taste and odorless, possessing the empirical formula $C_8H_{12}O_3NCl$. It is separate and distinct from nicotinic acid, although the basic structure in both vitamins is the pyridine ring. The complete structure is



Pyridoxine hydrochloride

The mechanism in which vitamin B_6 functions in the living organism is unknown. It, like the previous vitamins discussed, may be related to enzyme systems, but there is no evidence for such a conclusion except the fact that it is rather closely bound to protein. There appears to be a functional relationship between unsaturated fatty acids and the vitamin.[33] McHenry and Gavin [34] suggest that pyridoxine brings about synthesis of fat from protein, but the nature of the mechanism is unknown.

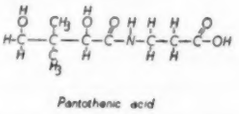
Pyridoxine has been shown to be essential in the nutrition of the rat,[35] the chick,[36] the dog [37] and the pig.[38] An acrodynia characterized by edema, swelling and denuding of the paws and areas around the mouth and frequent thickening of the ears is associated with pyridoxine deficiency in the rat,[39] although it has been demonstrated [40] that a lack of this vitamin may cause retarded growth without the dermatitis. The microcytic hypochromic anemia in dogs resulting from pyridoxine deficiency reported by Fouts and his co-workers [37] has been amply confirmed.[41]

No clear cut symptoms resulting from pyridoxine deficiency have been described in man. Spies, Bean and Ashe [42] have reported an additional improvement in pellagrins by giving pyridoxine after treatment with nicotinic acid, riboflavin and thiamine. Smith and Martin [43] observed a rapid and satisfactory healing of the typical lesions of cheilitis with vitamin B_6 therapy. Although clinical treatment of such conditions as Parkinson's disease, muscular dystrophy and paralysis agitans has been studied, the results are not definite enough to permit postulation of the action of the vitamin or to associate any one of these syndromes with specific lack of pyridoxine in the diet. The human requirement is unknown, but animal experiments indicate that the vitamin B_6 requirement may be about the same as for thiamine; namely, about 2 mg. a day.

The most reliable method for determining the pyridoxine content of foods is probably the rat assay method.[40] Scudi [44] and Swaminathan [45] have used chemical methods. Among the best sources are rice bran, liver, yeast, cereals, legumes and milk. Whole wheat contains about 0.46 mg. per hundred grams, most meats 0.4 to 0.7 mg. per hundred grams on the fresh basis,[46] fresh vegetables about 0.1 mg. per hundred grams and milk about 2 mg. per quart (liter). Swaminathan [47] found diets consumed in India to supply 3.5 to 5 mg. a day.

PANTOTHENIC ACID

In 1939 the term "filtrate factor" was still used to designate that member of the B complex which prevented dermatitis in chicks. Although the so-called filtrate fractions prepared from liver extract were effective in the prevention of blacktongue in dogs, pellagra in human beings and dermatitis in chicks, it was demonstrated as soon as nicotinic acid was accepted as the antipellagra factor that the activity of these fractions in the prevention of chick dermatitis was not due to the nicotinic acid present but to a separate and distinct vitamin. Shortly thereafter Woolley, Waisman and Elvehjem [48] and Jukes [49] independently demonstrated that pantothenic acid, which Williams [50] had shown to be a growth factor for yeast as early as 1933, was similar to the chick antidermatitis factor. The complete synthesis of pantothenic acid was achieved in 1940.[51] The vitamin is now available as the dextrorotatory calcium salt, which occurs in fine dense white crystals that are odorless and slightly bitter in taste. The empirical formula is $(C_9H_{16}NO_5)_2Ca$. The structural formula for the free acid is:



Pantothenic acid

Pantothenic acid is fairly stable to moist heat, especially at a neutral p_H, but is destroyed by prolonged dry heat. The compound is readily hydrolyzed into the

32. Harris, S. A., and Folkers, Karl: Synthesis of Vitamin B_6, J. Am. Chem. Soc. **61:** 1245 (May) 1939.
33. Birch, T. W.: The Relation Between Vitamin B_6 and the Unsaturated Fatty Acid Factor, J. Biol. Chem. **124:** 775 (Aug.) 1938.
34. McHenry, E. W., and Gavin, Gertrude: The B Vitamins and Fat Metabolism: IV. The Synthesis of Fat from Protein, J. Biol. Chem. **138:** 471 (April) 1941.
35. György, Paul; Sullivan, M., and Karsner, H. T.: Nutritional Dermatoses in Rats, Proc. Soc. Exper. Biol. & Med. **37:** 313 (Nov.) 1937.
36. Hegsted, D. M.; Oleson, J. J.; Elvehjem, C. A., and Hart, E. B.: The "Cartilage Growth Factor" and Vitamin B_6 in the Nutrition of Chicks, J. Biol. Chem. **130:** 423 (Sept.) 1939.
37. Fouts, P. J.; Helmer, O. M.; Lepkovsky, S., and Jukes, T. H.: Production of Microcytic Hypochromic Anemia in Puppies on Synthetic Diet Deficient in Rat Antidermatitis Factor (Vitamin B_6), J. Nutrition **16:** 197 (Aug.) 1938.
38. Chick, Harriette; Macrae, T. F.; Martin, H. J. P., and Martin, C. J.: The Water Soluble B Vitamins Other Than Aneurin (Vitamin B_1), Riboflavin and Nicotinic Acid Required by the Pig, Biochem. J. **32:** 2207 (Dec.) 1938.
39. György, Paul, and Eckardt, R. E.: Further Investigations on Vitamin B_6 and Related Factors of the Vitamin B_2 Complex in Rats, Biochem. J. **34:** 1143 (Sept.) 1940.
40. Conger, T. W., and Elvehjem, C. A.: The Biological Estimation of Pyridoxine (Vitamin B_6), J. Biol. Chem. **138:** 555 (April) 1941.
41. Street, H. R.; Cowgill, G. R., and Zimmerman, H. M.: Some Observations of Vitamin B_6 Deficiency in the Dog, J. Nutrition **21:** 275 (March) 1941. McKibbin, J. M.; Schaefer, A. E.; Frost, D. V., and Elvehjem, C. A.: Studies on Anemia in Dogs Due to Pyridoxine Deficiency, J. Biol. Chem. **142:** 77 (Jan.) 1942.
42. Spies, T. D.; Bean, W. B., and Ashe, W. F.: A Note on the Use of Vitamin B_6 in Human Nutrition, J. A. M. A. **112:** 2414 (June 10) 1939.
43. Smith, Susan Gower, and Martin, D. W.: Cheilosis Successfully Treated with Synthetic Vitamin B_6, Proc. Soc. Exper. Biol. & Med. **43:** 660 (April) 1940.
44. Scudi, J. V.: On the Colorimetric Determination of Vitamin B_6, J. Biol. Chem. **139:** 707 (June) 1941.
45. Swaminathan, M.: A Chemical Test for Vitamin B_6 in Foods, Indian J. M. Res. **28:** 427 (Oct.) 1940.
46. Henderson, L. M.; Waisman, H. A., and Elvehjem, C. A.: The Distribution of Pyridoxine (Vitamin B_6) in Meat and Meat Products, J. Nutrition **21:** 589 (June) 1941.
47. Swaminathan, M.: A Method for the Estimation of Vitamin B_6 in Urine, Indian J. M. Res. **29:** 561 (July) 1941.
48. Woolley, D. W.; Waisman, H. A., and Elvehjem, C. A.: Nature and Partial Synthesis of the Chick Antidermatitis Factor, J. Am. Chem. Soc. **61:** 977 (April) 1939.
49. Jukes, T. H.: Pantothenic Acid and the Filtrate (Chick Antidermatitis) Factor, J. Am. Chem. Soc. **61:** 975 (April) 1939.
50. Williams, R. J.; Lyman, C. M.; Goodyear, G. H.; Truesdail, J. H., and Haladay, D.: "Pantothenic Acid" a Growth Determinant of Universal Biological Occurrence, J. Am. Chem. Soc. **55:** 2912 (July) 1933.
51. Stiller, E. T.; Harris, S. A.; Finkelstein, Jacob; Keresztesy, J. C., and Folkers, Karl: Pantothenic Acid: VIII. The Total Synthesis of Pure Pantothenic Acid, J. Am. Chem. Soc. **62:** 1785 (July) 1940.

two component parts in alkaline solution. The compound is widely distributed in nature, but its function in normal metabolism is not known. It does occur in bound form in many tissues, since proteolytic enzymes are needed in order to liberate the compound completely from animal tissues.

Rats placed on diets low in pantothenic acid grow very poorly and develop in a few weeks necrosis of the adrenal cortex, which was first described by Daft and Sebrell.[52] Changes in hair pigmentation (graying) have been observed in many laboratories when black or piebald rats are used. Unna, Richards and Sampson[53] have published reproductions of photographs illustrating these fur changes in nutritional achromotrichia. Schaefer, McKibbin and Elvehjem[54] have produced acute pantothenic acid deficiencies in dogs that are characterized by sudden collapse associated with decreased blood dextrose, increased nonprotein nitrogen and lowered blood chlorides. Severe intussusception in the intestinal tract and fatty livers have also been observed. Phillips and Engel[55] have reported specific neuropathologic changes of the spinal cord in chicks suffering from pantothenic acid deficiency. Wintrobe[56] has also found neuropathologic changes in pigs on synthetic diets low in pantothenic acid and other members of the B complex.

In spite of these interesting symptoms in experimental animals, little is known about the real significance of pantothenic acid in human nutrition. Spies and his co-workers[57] conclude from studies based largely on blood pantothenic acid values that pantothenic acid is essential to human nutrition. Krahnke and Gordon[58] have studied the excretion of pantothenic acid in persons on different levels of intake. However, no specific symptoms in man have been correlated with a deficiency of the vitamin. This may be due to the fact that pantothenic acid is widely distributed and that even restricted diets may not be low enough to cause a serious deficiency.

No figures can be given for the daily human requirement. The relatively high amount of pantothenic acid needed to produce good growth in rats on synthetic diets has led to the assumption that the requirement is considerably higher than that of some of the other B vitamins. However, work in this laboratory indicates that the requirement for dogs can be satisfied with 0.10 mg. per hundred grams ration, a level very similar to that of thiamine and riboflavin. According to these results the human requirement may not be far from 5 mg. a day.

The pantothenic acid content of foods may be measured by growth experiments with chicks, but the microbiologic methods[59] are now in more general use. Liver is one of the richest natural sources, and if 5 mg. is accepted as the daily requirement 100 Gm. of the fresh liver will meet this requirement. Meats, cereals and milk are all reliable sources. Few studies have been made on the loss of this vitamin during cooking, but the loss may be very similar to that for thiamine, since pantothenic acid is readily soluble in water and not too stable at elevated temperatures. Evidence is available to show that only about one half of the pantothenic acid in whole wheat is lost during the milling process.

CHOLINE

Choline is a colorless viscous fluid, and the more familiar choline chloride is a very hygroscopic white crystalline substance with a salty bitter taste. As expected from its chemical constitution, the compound is not stable to alkali treatment but is stable to acids even at elevated temperatures.

Choline has been recognized for many years as a component part of the phospholipid lecithin, but its functional importance in nutrition was not apparent until Best almost ten years ago demonstrated its role in the prevention of fatty livers in depancreatized dogs.[60] Choline is now considered an important member of the B complex, although Jacobi, Baumann and Meek[61] have demonstrated that synthesis of this substance may occur in the rat.

The function of choline is in some way related to the mobilization of fatty acids in the body, since in its absence liver fat rapidly accumulates. Experiments with the dog and the rat have demonstrated that neutral fat was involved, since fatty livers in rats induced by feeding high cholesterol diets did not respond to choline treatment. The observations of du Vigneaud and his collaborators[62] that the methyl groups of choline as well as those of methionine and betaine are transferable in the animal organism has led to the postulation that one of the functions of choline is to supply labile methyl groups. McHenry[60] states that there is evidence now that choline may function in at least three ways: to stimulate the formation of phospholipids, to make possible the production of acetyl choline or to supply labile methyl groups.

Jukes[63] has shown that choline is one of the factors required in addition to adequate manganese to prevent slipped tendon in young turkeys. Sure[64] reports that choline is indispensable for lactation in adults rats and in the prevention of paralysis in suckling rats. Depression of the growth rate when choline is omitted from the diet has been observed in the case of the rat by Richardson, Hogan, Long and Itschner,[65] in the chick

52. Daft and Sebrell, cited by Daft, F. S.; Sebrell, W. H.; Babcock, S. H., Jr., and Jukes, T. H.: Effect of Synthetic Pantothenic Acid on Adrenal Hemorrhage, Atrophy and Necrosis in Rats, Pub. Health Rep. **55:** 1333 (July 26) 1940.

53. Unna, Klaus; Richards, Grace V., and Sampson, W. L.: Studies on Nutritional Achromotrichia in Rats, J. Nutrition **22:** 553 (Dec.) 1941.

54. Schaefer, A. E.; McKibbin, J. M., and Elvehjem, C. A.: Pantothenic Acid Deficiency Studies in Dogs, J. Biol. Chem. **143:** 321 (April) 1942.

55. Phillips, P. H., and Engel, R. W.: Some Histopathologic Observations on Chicks Deficient in the Chick Antidermatitis Factor or Pantothenic Acid, J. Nutrition **18:** 227 (Sept.) 1939.

56. Wintrobe, M. M.; Miller, J. L., Jr., and Lisco, Hermann: The Relation of Diet to the Occurrence of Ataxia and Degeneration of the Nervous System of Pigs, Bull. Johns Hopkins Hosp. **67:** 377 (Dec.) 1940.

57. Spies, T. D.; Stanbery, S. R.; Williams, R. J.; Jukes, T. H., and Babcock, S. H., Jr.: Pantothenic Acid in Human Nutrition, J. A. M. A. **115:** 523 (Aug. 17) 1940.

58. Krahnke, H. F., and Gordon, E. S.: Pantothenic Acid in Human Nutrition, J. Clin. Investigation, to be published.

59. Pennington, D.; Snell, E. E., and Williams, R. J.: An Assay Method for Pantothenic Acid, J. Biol. Chem. **135:** 213 (Aug.) 1940. Pelzar, M. J., Jr., and Porter, J. R.: A Microbiological Assay Technic for Pantothenic Acid with the Use of Proteus Morganii, ibid. **139:** 111 (May) 1941. Strong, F. M.; Feeney, R. E., and Earle, A.: Microbiological Assay for Pantothenic Acid, Indust. & Engin. Chem., Anal. Ed. **13:** 566 (Aug.) 1941.

60. McHenry, E. W.: Choline, the B Vitamins and Fat Metabolism, Biological Symposia, edited by H. B. Lewis, Lancaster, Pa., Jaques Cattell Press **5:** 177, 1941.

61. Jacobi, H. P.; Baumann, C. A., and Meek, W. J.: The Choline Content of Rats on Various Choline Free Diets, J. Biol. Chem. **138:** 571 (April) 1941.

62. du Vigneaud, Vincent; Chandler, J. P.; Moyer, A. W., and Keppel, Dorothy M.: The Effect of Choline on the Ability of Homocystine to Replace Methionine in the Diet, J. Biol. Chem. **131:** 57 (Nov.) 1939. du Vigneaud, Vincent: The Interrelationship Between Choline and Other Methylated Compounds, Biological Symposia edited by H. B. Lewis, Lancaster, Pa., Jaques Cattrell Press **5:** 234, 1941.

63. Jukes, T. H.: Prevention of Perosis by Choline, J. Biol. Chem. **134:** 789 (July) 1940.

64. Sure, Barnett: The Essential Nature of Choline for Lactation and Growth of the Albino Rat, J. Nutrition **19:** 71 (Jan.) 1940.

65. Richardson, L. R.; Hogan, A. G.; Long, Barbara, and Itschner, K. I.: The Number of Vitamins Required by the Rat, Proc. Soc. Exper. Biol. & Med. **46:** 530 (April) 1941.

by Hegsted, Mills, Elvehjem and Hart [66] and in the dog by Schaefer, McKibbin and Elvehjem.[67]

The high requirement of the young rat for choline has been stressed by Griffith,[68] who previously reported fatty degeneration of the liver, hemorrhagic renal lesions, ocular hemorrhages and regression of the thymus within ten days after the rats had been placed on a choline low but otherwise adequate diet. These results on weanling rats are of special significance in the light of recent findings reported from India [69] that in 20 to 30 cases prematurely born infants showed definite fatty livers and hemorrhagic kidneys.

Choline forms insoluble compounds with Reinecke's salt, rhodozanic acid and mercury and can be determined chemically by these procedures. Griffith has studied the choline requirement of the weanling rat and finds that under his dietary conditions 4 to 6 mg. daily will give protection against fatty livers. By determining the level of test substance necessary to furnish similar protection, a measure of its choline content can be obtained. It is to be remembered that other substances which can furnish labile methyl groups such as betaine and sarcosine can function in a manner similar to choline.

As stated previously, lecithin contains choline, and thus meats, cereals, vegetables and eggs would be considered good sources of choline. Yeast seems to be extremely variable in its content of choline, some yeasts being almost free from the factor and others containing enough to protect against fatty livers when fed at 10 per cent of the ration.

Clinical work on choline is of course very limited, and no conclusions can be made until more extensive studies are carried out. Dr. P. G. Danis reported before the Southern Medical Association at St. Louis in November 1941 that choline was of some value in controlling icterus gravis in infants.

BIOTIN

Although biotin has been recognized as necessary for the growth of micro-organisms for some time, its significance in the nutrition of animals is just in the process of being elucidated. Biotin was first isolated in 1936 by Kögl and Tonnis,[70] but its complex nature and, more important, its minute concentration in natural products has delayed complete identification of its structure even up to the date of this review. Its empirical formula $C_{10}H_{16}O_3N_2S$ has been found by du Vigneaud [71] to consist of a cyclic derivative of urea which, on oxidation, yields adipic acid.

Both the free biotin and the methyl ester have been prepared and possess crystalline structures. Biotin is a very stable compound, resisting autoclaving with strong mineral acids, and in the form found in natural products is but slowly inactivated with strong alkali. The pure biotin, however, shows appreciable lability to alkali. Both free and bound biotin are inactivated by oxidizing agents.

It has been known for many years that a characteristic syndrome can be produced in rats fed diets containing rather high amounts of raw egg white. Lease, Parsons and Kelly [72] found that the rabbit and the monkey also exhibited a characteristic dermatitis when fed rations rich in egg whites. As early as 1933 Parsons [73] concluded that the injury involved an interrelation between a positive toxicity and a relative absence of a protective factor, and a little later György named this factor vitamin H. Birch and György [74] obtained highly potent concentrates of the factor, and in 1940 du Vigneaud, Melville, György and Rose [75] first suggested the identity of biotin and vitamin H.

György, Rose, Eakin, Snell and Williams [76] have now established the presence of "avidin" (an albumin) as the biotin inactivating factor in egg white. Thus it becomes apparent that egg white injury is due to the unavailability of biotin by virtue of being tied up with avidin, in which complex biotin cannot be absorbed from the intestine and is excreted in the feces. Nielsen and Elvehjem,[77] using a more complete ration than had been used in the early work, were able to demonstrate a biotin deficiency in the rat fed 10 per cent levels of egg white. Typical symptoms of "spectacled eye" progressing to general alopecia and, in the later stages, the onset of a spasticity and final death of the animal were recorded. Even the severe symptoms of spasticity were cured when excess biotin (in excess of that which unites with the avidin) was added to the diet. On the synthetic diet without the egg white these workers were unable to demonstrate any signs of biotin deficiency, and it seems probable that under most conditions the rat can synthesize, through the medium of bacteria in the intestine, sufficient biotin for its requirement. Biotin deficiency has been reported in the chick without resorting to egg white diets, which seems to indicate that very limited synthesis of biotin in the intestinal tract must prevail. A typical dermatitis involving the feet was found by Hegsted and his co-workers [78] to be characteristic of the deficiency in the chick; and Patrick and his co-workers [79] also have noted similar dermatitis with turkeys on biotin deficient rations.

Biotin can be conveniently determined by use of microbiologic methods of assay in which responses in yeast growth (Snell, Eakin and Williams [80]) or acid production by Lactobacillus casei (Shull, Hutchings and Peterson [81]) are measured. Biotin is quite ubiquitous in distribution, but liver, kidney, yeast and egg

66. Hegsted, D. M.; Mills, R. C.; Elvehjem, C. A., and Hart, E. B.: Choline in the Nutrition of Chicks, J. Biol. Chem. **138**: 459 (April) 1941.

67. Schaefer, A. E.; McKibbin, J. M., and Elvehjem, C. A.: Importance of Choline in Synthetic Rations for Dogs, Proc. Soc. Exper. Biol. & Med. **47**: 365 (June) 1941.

68. Griffith, W. H.: The Nutritional Importance of Choline, J. Nutrition **22**: 239 (Sept.) 1941.

69. Griffith, W. H.: Personal communication to the author.

70. Kögl, F., and Tonnis, B.: Plant Growth Substances: XX. The Bios Problem; Isolation of Crystalline Biotin from Egg Yolk, Ztschr. f. physiol. Chem. **242**: 43 (Aug.) 1936.

71. du Vigneaud, Vincent; Hofmann, Klaus, and Melville, D. B.: On the Structure of Biotin, J. Am. Chem. Soc. **64**: 188 (Jan.) 1942.

72. Lease, Jane G.; Parsons, Helen T., and Kelly, Eunice: A Comparison in Five Types of Animals of the Effects of Dietary Egg White and of a Specific Factor Given Orally or Parenterally, Biochem. J. **31**: 433 (March) 1937.

73. Parsons, Helen T.; Lease, Jane G., and Kelly, Eunice: The Cure of Dermatitis Due to Egg White by Various Foodstuffs, J. Biol. Chem. **100**: lxxvii (May) 1933.

74. Birch, T. W., and György, Paul: Physiochemical Properties of the Factor (Vitamin H) Curative of Egg White Injury, J. Biol. Chem. **131**: 761 (Dec.) 1939.

75. du Vigneaud, Vincent; Melville, D. B.; György, Paul, and Rose, C. S.: On the Identity of Vitamin H with Biotin, Science **92**: 62 (July 19) 1940.

76. György, Paul; Rose, C. S.; Eakin, R. E.; Snell, E. E., and Williams, R. J.: Egg White Injury as the Result of Nonabsorption in Inactivation of Biotin, Science **93**: 477 (May 16) 1941.

77. Nielsen, E., and Elvehjem, C. A.: Cure of Spectacle Eye Condition in Rats with Biotin Concentrates, Proc. Soc. Exper. Biol. & Med. **48**: 349 (Oct.) 1941.

78. Hegsted, D. M.; Oleson, J. J.; Mills, R. C.; Elvehjem, C. A., and Hart, E. B.: Studies on a Dermatitis in Chicks Distinct from Pantothenic Acid Deficiency, J. Nutrition **20**: 599 (Dec.) 1940.

79. Patrick, H.; Boucher, R. V.; Dutcher, R. A., and Knandel, H. C.: Biotin and Prevention of Dermatitis in Turkey Poults, Proc. Soc. Exper. Biol. & Med. **48**: 456 (Nov.) 1941.

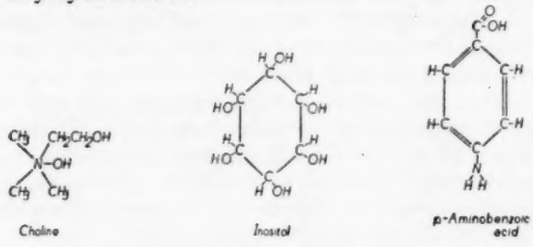
80. Snell, E. E.; Eakin, R. E., and Williams, R. J.: Quantitative Test for Biotin and Observation Regarding Its Occurrence and Properties, J. Am. Chem. Soc. **62**: 175 (Jan.) 1940.

81. Shull, G. M.; Hutchings, B. L., and Peterson, W. H.: A Microbiological Assay for Biotin, J. Biol. Chem. **142**: 913 (Feb.) 1942.

yolk are the chief sources. It is to be emphasized that in most tissues biotin is present in a "bound" state in which it cannot be extracted by hot water, and autolysis or acid hydrolysis must be employed to realize the true concentration of biotin in these instances. As for the clinical applications of biotin, it is needless to point out the futility of even attempting human experimentation until a great deal more of the fundamental work has been accomplished. As soon as crystalline biotin becomes more generally available, this fundamental work will be forthcoming.

INOSITOL

The position of inositol among the B vitamins is only tentative; but, since several workers have obtained responses with this compound, presentation of their work is warranted. Inositol is a crystalline substance with a sweet taste, the formula of which is isomeric with d-glucose. Its structure shows it to be a hexahydroxy cyclohexane.



It is an extremely stable compound resisting strong acid and alkali treatment. It is found in plants, where it occurs as "phytin," a calcium magnesium salt of inositol phosphoric acid. In the body, inositol is found in muscle (accounting for the term "muscle sugar"), brain, blood erythrocytes and eye tissues, but its function is still only a matter of speculation. The relation of inositol to the nutrition of animals was first indicated by the report of Woolley,[82] who isolated the substance from liver and showed it to be the constituent factor responsible for the cure of mouse alopecia. Later Pavcek and Baum [83] were able to demonstrate a growth response and a cure of spectacled eye in rats. The curative action and growth effect of inositol seemed to be related to the amount and type of fat in the diet, since the syndrome was produced on fat free or low butter fat rations and not on those containing 14 per cent Crisco (unpublished data). Sure [84] has presented data which indicate that inositol may be required by the lactating rat. Martin, Thompson and de Carvajal Ferero [85] have injected rather low levels (10 mg. per kilogram of body weight) of inositol into dogs and found intestinal motility to be greatly increased. A definite growth increment in the chick was obtained on feeding inositol in conjunction with a synthetic ration.[86] In the rat, inositol was found to have an effect similar to lipocaic in preventing the fatty livers produced by the feeding of liver fractions or purified biotin preparations.[87]

Inositol can be determined in tissues and foods by using a microbiologic assay employing a specific strain of yeast as the test organism.[88] By this method of determination, Williams and his co-workers [89] have run large numbers of assays on various rat and beef tissues and found spleen, heart, kidney, brain, thyroid and testes to be especially high in inositol. As previously mentioned, inositol in the form of phytin, is present in large amounts distributed throughout the plant kingdom; cereal brans and seeds are exceptionally good sources. No work has been done on the possible significance of inositol in human nutrition.

PARA-AMINOBENZOIC ACID

Another factor which was first recognized through its effect on bacterial growth [90] and which now shows indication of a vitamin-like action in animals is a rather simple derivative of benzoic acid—para-aminobenzoic acid.

Ansbacher [91] has produced graying of the fur of rats on a synthetic ration which could be cured by the administration of 3 mg. of para-aminobenzoic acid daily. It should be mentioned that this achromotrichia was not related to pantothenic acid, since the ration contained an adequate amount of this vitamin. A growth response in chicks maintained on a vitamin K deficient ration was also obtained when 300 micrograms of para-aminobenzoic acid per gram of ration was added. Sure,[84] in experiments involving pregnancy and lactation in rats, has observed definite responses to para-aminobenzoic acid. There is some evidence in clinical experiments that restoration of hair pigment may occur,[92] but more extensive experiments both in animal and in clinical trials are necessary before the vitamin nature of the substance can be clearly established.

OTHER FACTORS OF THE B COMPLEX

Although the nine crystalline factors that have been described include almost all of the B factors required by the rat, the use of the chick as the experimental animal gives evidence for the existence of several additional factors which, because of their water solubility, should be classed under the B vitamins. Schumacher, Heuser and Norris [93] have fractionated yeast and obtained two growth factors which could not be replaced in their activity by any of the known B vitamin combinations. The designation of R and S factors was applied to these fractions. The identity of one of these factors with the unknown eluate factor which Stokstad [94] postulates as being responsible together with pyridoxine for the activity of factor U is quite probable.

Aminoacetic acid, arginine and chondroitin were found through the experiments of Almquist [95] and Heg-

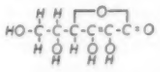
82. Woolley, D. W.: The Nature of the Antialopecia Factor, Science **92:** 384 (Oct. 25) 1940.
83. Pavcek, P. L., and Baum, H. M.: Inositol and Spectacled Eye in Rats, Science **93:** 502 (May 23) 1941.
84. Sure, Barnett: Dietary Requirements for Fertility and Lactation: XXX. Role of p-Aminobenzoic Acid and Inositol in Lactation, Science **94:** 167 (Aug. 15) 1941.
85. Martin, G. J.; Thompson, M. R., and de Carvajal-Ferero, J.: Influence of Inositol and Other B Complex Factors on the Motility of the Gastrointestinal Tract, Am. J. Digest. **8:** 290 (Aug.) 1941.
86. Hegsted, D. M.; Briggs, G. M., Jr.; Mills, R. C.; Elvehjem, C. A., and Hart, E. B.: Inositol in Chick Nutrition, Proc. Soc. Exper. Biol. & Med. **47:** 376 (Jan.) 1941.
87. Gavin, Gertrude, and McHenry, E. W.: Inositol: A Lipotropic Factor, J. Biol. Chem. **139:** 485 (May) 1941.
88. Woolley, D. W.: A Method for the Estimation of Inositol, J. Biol. Chem. **140:** 453 (Aug.) 1941.
89. Williams, R. J.; King, Anne; Mitchell, H. K., and McMahan, J. R.: Assay Method for Inositol: Studies on the Vitamin Content of Tissues: I, University of Texas Publication 4137, Oct. 1, 1941, p. 27.
90. Rubbo, S. D., and Gillespie, J. M.: Para-Aminobenzoic Acid as a Bacterial Growth Factor, Nature **146:** 838 (Dec. 28) 1940.
91. Ansbacher, Stefan: P-Aminobenzoic Acid, a Vitamin, Science **93:** 164 (Feb. 14) 1941.
92. Sieve, B. F.: Clinical Achromotrichia, Science **94:** 257 (Sept. 12) 1941.
93. Schumacher, A. E.; Heuser, G. F., and Norris, L. C.: The Complex Nature of the Alcohol Precipitate Factor Required by the Chick, J. Biol. Chem. **135:** 313 (Aug.) 1940.
94. Stokstad, E. L. R.; Manning, P. D. V., and Rogers, R. E.: The Relation Between Factor U and Vitamin B_6, J. Biol. Chem. **132:** 463 (Jan.) 1940.
95. Almquist, H. J.; Stokstad, E. L. R.; Mecchi, E., and Manning, P. D. V.: Identification of the Rice Factor, J. Biol. Chem. **134:** 213 (June) 1940. Almquist, H. J.; Mecchi, E.; Stokstad, E. L. R., and Manning, P. D. V.: Identification of the Rice Factor: The Carbohydrate Component, ibid. **134:** 465 (June) 1940.

sted [96] as the factors responsible almost entirely for the growth responses due to cartilage and termed the "cartilage growth factor" by the Wisconsin workers. The amino acid cystine shows indications of stimulating growth when fed to chicks on a synthetic ration, indicating the inadequacy of 18 per cent casein diets in this factor.[97] The factor required by Lactobacillus casei has been shown by Hutchings [98] to function in the nutrition of the chick, and it is highly probable from the comparison of chemical and other properties that it is identical with the "folic acid" of Williams and his co-workers [99] and what Stokstad [100] termed a "nucleotide."

The class of water soluble vitamins found in citrus fruits, vegetables and milk include ascorbic acid, vitamin P, the "grass juice factor" and the "milk factor."

ASCORBIC ACID, OR VITAMIN C

Ascorbic acid is a colorless crystalline compound with a mild acidic taste resembling that of citric acid and possesses the empirical formula $C_6H_8O_6$. The structural formula of l-ascorbic acid, the physiologically active isomer, is represented as follows:



l-Ascorbic acid

Ascorbic acid is easily destroyed in vegetables, as illustrated by loss of 50 per cent of the vitamin content of lettuce and spinach when stored at room temperature for several days. Cold storage is an effective means of preserving this factor in vegetables and fruits. Ascorbic acid is very easily oxidized, and its destruction during cooking is probably related to this fact. Neutral or alkaline solutions are more conducive to rapid destruction of ascorbic acid than are acid solutions.

Much evidence for the relation of ascorbic acid to specific enzyme systems is available from in vitro experiments, but whether these relationships function in the animal organism is not clear. An important argument against the theory of ascorbic acid functioning as a respiratory catalyst is the failure of deficient tissues to show decreases in respiration.

Deficiencies of ascorbic acid can be demonstrated only in man, the monkey and the guinea pig, the other species possessing the ability of synthesis of the vitamin. In infants, especially those artificially fed, periosteal hemorrhages occurring around the bones of the lower extremities are manifestations of the deficiency, while, in adults, petechial hemorrhages into the skin, bleeding into muscle tissue and bloody diarrhea are not uncommon signs. The relation of ascorbic acid to the restoration of the fertilizing capacity of the bull has been recently reported by Phillips and his co-workers.[101] The ascorbic acid content of bull semen gives an index to the probable potency in breeding; low values or exceptionally high values of ascorbic acid are associated with an unreliable breeding record.

The vitamin can be easily determined by use of the dye 2-6 dichlorophenol indophenol, which is quantitatively reduced by ascorbic acid with the resulting formation of the colorless form of the dye and dehydroascorbic acid. Citrus fruits, spinach, berries, tomatoes and cabbage are excellent natural sources of ascorbic acid.

The recommended daily allowance for an average adult man is 75 mg., while the minimum requirement has been set at 30 mg. daily. The high requirement of the infant for this factor is provided for in the high concentration of ascorbic acid found in human milk as compared with cow's milk.

CITRIN (VITAMIN P)

A substance distinct from vitamin C has been reported as existing in paprika and lemon rind by Rusznyák and Szent-Györgyi.[102] It has been termed "citrin" and found to consist of two flavonone components, hesperidin and demethylated hesperidin, or eriodictin. It has been difficult to demonstrate animal responses to such flavonones, but in several clinical trials definite indications of the functioning of these substances in certain hemorrhagic diseases is available. Szent-Györgyi and his co-workers [103] report improvement of capillary resistance and permeability in several cases of vascular purpura. Scarborough,[104] presenting data on 6 patients with generalized vitamin deficiencies, has evidence that intramuscular hemorrhages and gingival bleeding were alleviated by large doses of ascorbic acid, but capillary resistance remained low until vitamin P preparations made from orange juice or orange peel were administered. According to this author there exists a distinction between the spontaneous petechial hemorrhages of vitamin P deficiency and those associated with low intake of ascorbic acid.

Citrin, on reduction with magnesium in the presence of concentrated hydrochloric acid, forms a red color. Red is produced also when citrin is heated with sodium hydroxide. These reactions have been used by some

TABLE 2.—*Vitamin Content of Commercial Concentrates*

Sample No.	Milligrams per unit of product				
	Thiamine	Riboflavin	Nicotinic Acid	Pyridoxine	Pantothenic Acid
2	0.3	0.12	0.8	0.08	.....
3	0.2	0.3	3.0	.03	0.2
4	.45	.08	1.2	.....	.....
8	1.5	.37	10.0	0.2	0.1
11	0.3	0.1	.....	.....	.....
21	1.0	0.6	5.0	0.3	0.3
33	1.2	0.4	10.0	0.1	0.1
37	1.8	0.1	10.0	0.02	.....
39	1.0	1.0	0.15	0.03	0.2
48	1.0	1.2	12.0	1.2	1.2
67	1.0	1.0	10.0	0.1	0.1
76	1.5	0.5	25.0	0.12	0.5
90	5.0	2.0	20.0	0.2	.....
102	1.5	1.0	20.0	0.2	1.0
110	.15	.005	.005	.003	.....

96. Hegsted, D. M.; Hier, S. W.; Elvehjem, C. A., and Hart, E. B.: Growth Factors in Cartilage for the Chick, J. Biol. Chem. **139:** 863 (June) 1941.

97. Briggs, S. M., Jr.; Mills, R. C.; Elvehjem, C. A., and Hart, E. B.: The Effect of Added Cystine in Purified Rations for Chicks, J. Biol. Chem., to be published.

98. Hutchings, B. L.; Bohonos, N.; Hegsted, D. M.: Elvehjem, C. A., and Peterson, W. H.: Relation of a Growth Factor Required by Lactobacillas Casei E to the Nutrition of the Chick, J. Biol. Chem. **140:** 681 (Aug.) 1941.

99. Mitchell, H. K.; Snell, E. E., and Williams, R. J.: The Concentration of "Folic Acid," J. Am. Chem. Soc. **63:** 2284 (Aug.) 1941.

100. Stokstad, E. L. R.: Isolation of a Nucleotide Essential for the Growth of Lactobacillus Casei, J. Biol. Chem. **139:** 475 (May) 1941.

101. Phillips, P. H.; Lardy, H. A.; Heizer, E. E., and Rupel, I. W.: Sperm Stimulation in the Bull Through Subcutaneous Administration of Ascorbic Acid, J. Dairy Sc. **23:** 873 (Sept.) 1940.

102. Rusznyák, Stefan, and Szent-Györgyi, Albert: Vitamin P: Flavonols as Vitamins, Nature **138:** 27 (July 4) 1936.

103. Armentano, L.; Bentsath, A.; Beres, T.; Rusznyák, Stefan, and Szent-Györgyi, Albert: Ueber den Einfluss von Substanzen der Flavongruppe auf dem Permeabilität der Kapillaren: Vitamin P (The Influence of Flavonols on Capillary Permeability: Vitamin P) Deutsche med. Wchnschr. **62:** 1325 (Aug. 14) 1936.

104. Scarborough, Harold: Deficiency of Vitamin C and Vitamin P in Man, Lancet **2:** 644 (Nov. 23) 1940.

workers for the estimation of this substance in fruits and vegetables, but poor agreement in the results points to the nonspecificity of the color tests.

GRASS JUICE FACTOR AND MILK FACTOR

On rations permitting good growth in the rat or those adequate for the chick, guinea pigs do not survive, indicating that other unknown factors are still lacking. The factor found in fresh grass which is required by the guinea pig has been called the "grass juice factor" by Kohler, Elvehjem and Hart.[105] Evidence for another factor, found in milk, concerned with stomach hemorrhages and ulcers in this animal is suggested by the work of Kohler, Randle, Elvehjem and Hart.[106] The usefulness of employing a variety of species of test animals in the elucidation of dietary essentials thus cannot be disputed.

From this short discussion it is obvious that the group of water soluble vitamins includes more than a dozen separate factors, many of which have found an important place in human nutrition. Additional factors have been added to this group within the past two years, and some of these may have an equally important role when they are studied more extensively. I doubt that any one will deny the suggestion that there are several water soluble vitamins left to be identified.

The availability of the several synthetic water soluble vitamins has been of the greatest value in clinical practice, but the common foods still remain the best source of these vitamins in practical nutrition. Aside from the gustatory significance of properly prepared natural foods, the greatest value obtained from their consumption is that they supply the unknown factors along with the known. All the known water soluble vitamins may be obtained from natural foods through proper selection. This selection is not an easy task even with the modern methods of food production and distribution. Some of the modern methods of processing increase rather than decrease the difficulties. Often more emphasis is placed on the mere use of natural foods than on the proper combination of these foods. The few values given in table 1 clearly indicate the fallacy of this emphasis. Different natural foods differ greatly in the amount of any given vitamin which they contain. Thus apples contain 0.02 mg. and pork loin 1.5 mg. of thiamine per hundred grams and both are natural foods. Eggs supply 0.05 mg. and peanuts 13 mg. of nicotinic acid per hundred grams. In addition, any one food may show enormous variations in the amount of the different B vitamins present. Thus oatmeal contains 0.8 mg. of thiamine but only 0.1 mg. of riboflavin per hundred grams, while calf's liver contains 0.4 mg. of thiamine and 3.2 mg. of riboflavin per hundred grams. We still need to use a little ingenuity in compounding a complete diet even from natural foods.

There has been an increasing interest in eliminating the effect of this variation by prescribing vitamin concentrates. In other words, a tablet or a capsule may supply the daily requirement of the vitamins, and any pleasing combination of foods may be consumed for the rest of the day. A survey of the concentrates now on the market shows that this is a dangerous practice and that the composition of the concentrates varies just as much as natural foods. At my request Mrs. Sarah Ellen Wenger has studied the composition of one hundred and nineteen vitamin products manufactured by thirty-two different companies. The B vitamin content of a few of the products is given in table 2. The thiamine content varies from 0.15 to 5.0 mg., the riboflavin from 0.005 to 2.0 mg., the nicotinic acid from 0.005 to 25 mg., and so on. In a single product (No. 37) the thiamine is 1.8, the riboflavin 0.1, nicotinic acid 10.0, and vitamin B_6 0.02 mg. These products may be useful in the treatment of specific deficiencies, but in practical nutrition they give us no greater security than the proper combination of natural foods. Thus we not only need to identify all the essential vitamins but we must give consideration to the distribution of these factors in foods and food preparations as well as the daily human requirements.

105. Kohler, G. O.; Elvehjem, C. A., and Hart, E. B.: Growth Stimulating Properties of Grass Juice, Science **83:** 445 (May 8) 1936.
106. Kohler, G. O.; Randle, S. B.; Elvehjem, C. A., and Hart, E. B.: Simplified Rations for Guinea Pigs Suitable for Assay of the Grass Juice Factor, Proc. Soc. Exper. Biol. & Med. **40:** 154 (Feb.) 1939.

Council on Physical Therapy

THE COUNCIL ON PHYSICAL THERAPY HAS AUTHORIZED PUBLICATION OF THE FOLLOWING REPORT. HOWARD A. CARTER, Secretary.

GEM HEARING AID, MODEL V-4, C-186, ACCEPTABLE

Manufacturer: Gem Ear Phone Company, 47 West Thirty-Fourth Street, New York.

The Gem Hearing Aid consists of a combined microphone and vacuum tube amplifier with crystal receiver, with A and B batteries contained in a paper case.

The microphone and amplifier unit are housed in a molded case measuring 4 by 1⅞ by 1 inches and weighing 4 1/10 ounces. The battery unit measures 3¼ by 3¼ by 1⅛ inches and weighs 10 ounces. The receiver is 3/16 by 1 inch in diameter.

BATTERIES

Voltages and current drains with instrument turned full on are:

	Voltage	Current
A battery	1.5 volts	70 milliamperes
B battery	30.0 volts	0.5 to 0.7 milliampere

Gem Hearing Aid, Model V-4, C-186.

ACOUSTICAL GAIN

The instrument has two control knobs at the top of the case marked "Volume" and "Tone." The first is an on and off switch; the second seems to be an auxiliary volume control, since its operation showed no definite effect on the tone quality. The instrument is electrically stable and, with a well fitted earpiece, can be turned to full volume without feedback squeal. Internal noise is fairly low, and the instrument is not unduly sensitive to mechanical shocks.

The following are the orders of magnitude of acoustical gain at full volume shown at different frequencies:

128-256	512-2,048	3,072	4,096
Nil	15-39	33	16 decibels

A hard of hearing subject, with an average hearing loss of 45 decibels over the speech range, reports comfortable loudness for conversational speech at a distance of 5 feet when the "Tone Control" is turned to one-half full volume.

ARTICULATION TESTS

The usual word and sentence lists were used with hard of hearing subjects at a distance of 5 feet in a quiet room and showed satisfactory performance.

While substantially made, the instrument is evidently designed for economical construction. It is advertised as being "at a new low in price."

The Council voted to accept the Gem Hearing Aid for inclusion in the list of accepted devices.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

535 NORTH DEARBORN STREET - - - CHICAGO, ILL.

Cable Address - - - - "Medic, Chicago"

Subscription price - - - - : Eight dollars per annum in advance

Please send in promptly notice of change of address, giving both old and new; always state whether the change is temporary or permanent. Such notice should mention all journals received from this office. Important information regarding contributions will be found on second advertising page following reading matter.

SATURDAY, DECEMBER 26, 1942

BLAST INJURIES

An editorial[1] on the subject of blast injuries, published in the March 14, 1942 issue of THE JOURNAL, called attention to Hooker's basic experiments on the physiologic effects of air concussion. Zuckerman concluded from his animal experiments that it is the pressure component of the blast wave which bruises the lungs by a direct impact on the body wall. Surgeon Commander Williams,[2] in a Hunterian Lecture, discusses some results of research by English naval experimental authorities on the pressure effects produced by gun fire. In these experiments it was found that the maximum blast pressure that can be withstood without loss of efficiency is 2½ pounds per square inch. The physical effect of these pressures has been described by observers as being that of a sudden blow on the chest and abdomen. Williams thinks that the effect of the negative air suction wave cannot be entirely neglected; he refers to Daly's experiments on goats subjected to sudden decrease in air pressure, resulting in lesions of the lungs. According to Williams, the third blast component of mass movement of air or gas is capable of inflicting injury of any degree of severity and is responsible for the shattering effects produced in the immediate vicinity of an explosion. In the water, where mass movement is of a small degree even in close proximity to an explosion, these shattering effects are not seen. The mechanism of blast effects in water is much more simple, as there is only a single wave of pressure to be considered, the reflected wave from the sea bottom being of little importance except in shallow water, where it would practically coincide with the primary wave, assuming that the exposed swimmer is on the surface. The lesions caused in water, therefore, are probably due to a single high pressure wave, and there is no question of a wave descending the trachea or an after-suction wave. Effects on the body of explosions, both in air and in water, are primarily due to the externally applied pressure wave, but in air both the windage factor and the after-suction waves play their parts.

Internal blast injuries without external marks are rare in Williams's experience, since he has seen only 4 such cases among 1,500 casualties. They had the typical clinical and roentgenologic picture, the predominant symptoms in each case being dyspnea and cough. Symptoms which should lead to suspicion of blast damage to the lungs are hemoptysis, slight or severe, pain in the chest, and a short cough accompanied by dyspnea. A point of great practical importance in the treatment of these cases arises when an anesthetic is required for an associated lesion. Here the choice of anesthesia is limited to local anesthetics or to nitrous oxide-oxygen, possibly preceded by a minimum dose of pentothal sodium or evipal soluble. A spinal anesthetic should never be given when there is any degree of shock and lowered blood pressure. The use of ether or of the barbiturates alone is also barred because of their depressant effects. The clinical manifestations of patients who have suffered from water blast, according to Cameron and his associates,[3] vary from slight spinal concussion accompanied by bloody diarrhea to lacerations of the abdominal organs and lungs. The mortality from water blasts is high, and it is quite conceivable that many war casualties are due to this factor alone. These authors point out that in the present war, with its dive bombing and torpedo attacks on ships, often the majority of a ship's crew may find themselves in the water after a ship has sunk. Should a depth charge, mine or torpedo explode in the vicinity there would be grave danger that most of the men would lost their lives. Williams calls attention to the fact that acute abdominal pain and rigidity of the abdominal muscles accompanying blast injury to the abdomen are not indicative of the damage done. There may be gross trauma of the hollow or solid viscera, or the lesions may be so insignificant that a complete recovery may take place in a day or two. It is important to remember that most patients recover without surgical intervention. Authors agree that most blast injuries are multiple. They include concussion of the brain and spinal cord, injury to the lungs or the abdominal contents, rupture of the ear membrane and injury to the eye.

Williams believes that the most important single measure in the treatment of patients with blast injuries of the lungs is the continuous administration of oxygen. For respiratory embarrassment and distressing cough he states that he found heroin ⅛ grain (0.008 Gm.) most satisfactory, since it does not have the depressant effect of morphine. Administration of sulfanilamide or sulfapyridine in the first twenty-four hours is probably not desirable because of its depressant effect and because these drugs may induce vomiting, which is likely to aggravate the condition. Williams suggests that these

1. Blast Injuries, editorial, J. A. M. A. **118**: 898 (March 14) 1942.
2. Williams, E. R. P.: Blast Effects in Warfare, Brit. J. Surg. **30**: 38 (July) 1942.
3. Cameron, G. R.; Short, R. H. D., and Wakeley, C. P. G.: Pathological Changes Produced in Animals by Depth Charges, Brit. J. Surg. **30**: 49 (July) 1942.

patients with damaged lungs be considered particularly vulnerable to air borne infection. The danger of droplet infection from nurses and relatives should be minimized by the wearing of masks and by strict attention to nursing hygiene. These patients should not, as far as possible, be placed in a general ward but rather under conditions of isolation.

METABOLISM OF RADIOACTIVE IRON

Reliable quantitative studies of iron metabolism by the use of earmarked radioactive isotopes of natural iron were recently undertaken by Whipple and his co-workers[1] of the University of Rochester. The radio iron used by these investigators was prepared in the University of California by bombardment of ordinary iron atoms (Fe^{58}) with deuterons. The Fe^{59} thus formed decays slowly with the emission of beta rays, the half life of the isotope being forty-seven days, a sufficiently long time for metabolic studies. The amount of the isotope present in a given sample of tissue or body fluid is readily determined by measurement of its radioactivity (Geiger counter).

In their earlier experiments the Rochester physiologists[2] found that in normal dogs the rate of absorption of ingested radioactive iron is practically nil, the iron being given in the form of neutral salts (e. g., ferric ammonium citrate). In a typical experiment 650 mg. of radio iron was thus given in eighteen divided doses to a normal dog. Eighty-four hours after the last feeding only 0.24 mg. of radio iron was found on complete body analysis, most of this being recovered from the ashed liver. In contrast with this normal nonabsorption, relatively large amounts of ingested iron are absorbed from the intestinal contents of anemic dogs. Thus in a dog partially depleted of circulating and fixed tissue iron by repeated bleedings and prolonged maintenance on an iron poor diet, 9.3 per cent of the ingested iron was demonstrated in the blood stream and ashed viscera five days after the final feeding. Most of the circulating iron was already mobilized in the red blood cells, the liver and the bone marrow being the only fixed tissues containing appreciable amounts.

1. Balfour, W. M.; Hahn, P. F.; Bale, W. F.; Pommerenke, W. T., and Whipple, G. H.: J. Exper. Med. **76**: 15 (July) 1942.
2. Hahn, P. F.; Bale, W. F.; Lawrence, E. O., and Whipple, G. H.: J. Exper. Med. **69**: 739 (May) 1939.

The rapidity with which ingested radio iron is mobilized in the red blood cells is surprising. Presumably the plasma is the initial site of absorption, from which appreciable amounts of iron are transferred to the red blood cells within a few hours. This is too soon to be accounted for by the formation and release of new erythrocytes.

Physiologists[3] have long taught that superfluous iron is excreted solely or largely by the colon. This colonic excretion the Rochester experimenters were unable to confirm. Welch and his co-workers[4] studied a patient with an ileostomy stoma. They found that feeding large amounts of iron by mouth did not result in demonstrable colonic excretion. Apparently, maintenance of normal iron balance is not a function of the colon but of controlled absorption through the small intestine. Excessive iron is apparently excluded to avoid toxic effects.

Currently reported studies[1] from the Rochester laboratory are essentially clinical confirmation of results previously obtained on dogs. Thirty-four patients, together with adequate normal controls, were fed radio iron in the form of ferric ammonium citrate. Detailed blood analyses were subsequently made with the Geiger chamber. The patients included 14 pregnant women and a miscellaneous group with anemia and other blood dyscrasias. Among the most significant new observations were those on pregnant women without significant anemia. These at times showed as much as ten times the normal gastrointestinal absorption of radio iron, i. e. from 16 to 27 per cent of the iron intake. In disease states in which iron stores are known to be abundant, such as pernicious anemia, hemochromatosis, familial icterus and Mediterranean anemia, less radio iron absorption was observed than in normal persons. This occurred in spite of the anemia which accompanied all of their cases except those of hemochromatosis. Also, in spite of the accompanying anemia, chronic infections usually do not show increased utilization of iron.

Whipple and his colleagues conclude that the essential control of iron absorption is determined by the reserve stores of iron in the body rather than by anemia. By some unknown mechanism abundant iron reserves cause

3. MacCallum, W. G.: Textbook of Pathology, Philadelphia, W. B. Saunders Company, 1916, p. 108.
4. Welch, C. S.; Wakefield, E. G., and Adams, Mildred: Function of the Large Intestine of Man in Absorption and Excretion, Arch. Int. Med. **58**: 1095 (Dec.) 1936.

The directing board of the Procurement and Assignment Service for Physicians, Dentists and Veterinarians wishes immediately the name of any doctor who is willing to be dislocated for service, either in industry or in overpopulated areas, and who has not been declared essential to his present locality. This is necessary if the medical profession is to be able to meet these needs adequately and promptly. Any physician over the age of 45 who wishes to participate in the war effort in this way should send in his name immediately to the state chairman for the Procurement and Assignment Service in his state.

a gastrointestinal refusal to accept superfluous and potentially toxic iron. Attempts are now being made to determine the physicochemical, hormonal and local cytologic factors determining this exclusion. So far as known, metabolism of earmarked iron is identical with that of natural iron.

Current Comment

MEDALS OF THE ARMY MEDICAL DEPARTMENT

In a monograph recently published by the American Numismatic Society Hume[1] describes a series of twenty-four medals, struck in gold, silver and bronze, that have been awarded in recognition of scientific or academic attainment by members of the United States Army Medical Department. Some of these medals were awarded for work of great importance to our country; they serve also to reflect the quality of the army medical educational system. The Army Medical School, the oldest army service school, possesses the oldest medal in the Army awarded for academic standing. At the time of the war between the states Surg. Gen. William A. Hammond proposed the establishment of such an institution, but it did not then materialize. Surg. Gen. George M. Sternberg, with the support of a later secretary of war, Daniel S. Lamont, established the Army Medical School in 1893. The Army School of Nursing was established in 1918, the Medical Field Service School in 1920, the Army Dental School in 1921 and the Army Veterinary School in 1922. All these schools have medals created as awards for academic attainment. The medals were established by private gift, although accepted by the Army Medical Department and given official recognition. The school of Aviation Medicine also was established in 1922. Hume has reproduced the design of these medals and given brief biographies of some of the recipients. A second group of medals reviewed are those that have been awarded to certain distinguished members of the Army Medical Department. The Gorgas Medal was presented by the American Medical Association at its annual meeting in 1914 to Surg. Gen. William C. Gorgas, "whose genius made possible the construction of the Isthmian Canal." The Congressional Walter Reed Medal honoring the chairman of the army commission whose experiments proved that mosquitoes transmit yellow fever was struck some thirty years after the commission did its work and long after Major Walter Reed had died. Hume reviews again those famous experiments. Another Walter Reed Medal was created by the American Society of Tropical Medicine in 1934 to be awarded to individuals or institutions in recognition of meritorious achievement in tropical medicine. The Bailey K. Ashford Medal was established by Eli Lilly & Co. in 1940 and accepted by the American Society of Tropical Medicine, which was given the right to select the winners. The Wellcome Medal, established by the late Sir Henry Wellcome of London, an American by birth, has been awarded by the Asociation of Military Surgeons of the United States annually since 1916 for the best research, discovery, invention, essay or other acts or deeds which the association considers helpful in the attainment of its objects and relating to any phase of medical military affairs and disease control associated with the Army, Navy, Militia and Public Health Service. There have been numerous other awards. The Sedgwick Medal was awarded to Brig. Gen. Frederick F. Russell, who was largely responsible for the introduction and use of typhoid vaccine in the Army. Surgeon General Sternberg was awarded several medals, including one by the American Medical Association; John Shaw Billings, Deputy Surgeon General of the Army and the father of the Army Medical Library, received several awards. This monograph is limited, however, to medals honoring medical officers rather than to medals won by individual medical officers. The award of medals is a time honored method of recognizing merit. Hume's monograph will aid collectors and bring home to many others the scientific accomplishments of United States Army medical officers.

1. Hume, Edgar Erskine: Numismatic Notes and Monographs No. 98, The Medals of the United States Army Medical Department and Medals Honoring Army Medical Officers, American Numismatic Society, Broadway at 156th Street, New York, 1942.

NEW SYNDROME CHARACTERIZED BY GYNECOMASTIA AND ASPERMATOGENESIS

A new syndrome characterized by gynecomastia, aspermatogenesis without aleydigism, and increased secretion of follicle stimulating hormone has just been described by Klinefelter and his colleagues.[1] Nine cases are presented. Although these cases are not uncommon, they say, few reports have been found in the literature and no author, they claim, has grouped them as a definite clinical entity. The follicle stimulating hormone excretion in the urine is increased to a degree comparable to that found in castrates. Estrogen excretion was studied in 2 cases and found not to be increased. The 17-ketosteroid excretion level and the development of the accessory sexual organs vary from apparently normal to definitely subnormal. Testicular biopsies were obtained in 7 cases and showed hyalinization of the seminiferous tubules and normal appearing interstitial cells. Breast tissue was examined in 4 cases and showed some ductal hyperplasia with definite proliferation of the periductal connective tissue. Testosterone propionate and progesterone have been tried without success; estradiol dipropionate caused further enlargement of the gynecomastia. Surgical removal of the breast is recommended for cosmetic reasons and if carefully done is satisfactory. From microscopic observations it seems unlikely that anything can be done to correct the aspermatogenesis. For those who suffered from hypoleydigism, testosterone therapy is probably indicated. These studies support the view that the testes produce two hormones: (1) androgen from the Leydig cells and (2) X-hormone (inhibin) from the tubules. The gynecomastia is apparently not due to hyperestrogenism or to androgen alone; it may be due to the combination of androgen and lack of inhibin.

1. Klinefelter, H. F., Jr.; Reifenstein, E. C., Jr., and Albright, F.: Syndrome characterized by Gynecomastia, Aspermatogenesis without Aleydigism, and Increased Excretion of Follicle Stimulating Hormone, J. Clin. Endocrinol. 2: 615 (Nov.) 1942.

THE PEPPER HEARINGS ON MEDICAL MANPOWER

The Procurement and Assignment Service for Physicians, Dentists and Veterinarians, the U. S. Public Health Service, the Federation of State Medical Boards and the Committee on War Participation of the American Medical Association have all been earnestly concerned with the provision of medical service for the armed forces, industry and the civilian population. Plans are well under way to determine actual needs and to meet them. Nevertheless the little committee headed by Senator Pepper continues to hear opinions by various volunteers. Among those who have been heard recently were Dr. Gilbert Osincup of Orlando, Fla., president of the Florida Medical Association, who apparently did not, however, speak for his society, Dr. Kingsley Roberts, Dr. K. C. Walden of Wilmington, N. C., and some representatives of the New York Physicians Forum. It has not seemed worth while to give space in THE JOURNAL to verbatim reports of these volunteer testimonies. According to the Washington, D. C., *Times-Herald,* Senator Claude Pepper stated that he would put forward a suggestion that uniform laws be enacted to break down the "Chinese wall" preventing exchange of doctors between states. According to the *Times-Herald* "he made the statement after his committee conducted a hearing attended by ten persons, including Pepper, Senator Millikin (R.) of Colorado, two witnesses, two committee clerks and four newspapermen." Apparently Senator Pepper is unfamiliar with the action that has already been taken by the Federation of State Medical Boards urging controlled provisions for temporary licensure during the emergency. Among the extraordinary suggestions that have been made was that of Dr. Osincup, who urged that all doctors be taken into the Army, given training and then sent back to their home practices until they are needed in the Army.

MORE ABOUT VITAMIN P

Vitamin P is the designation given by Szent-Györgyi and his collaborators [1] in 1936 to the substance in lemon peel concerned with the regulation of capillary permeability and fragility. At that time it was suggested that, chemically, vitamin P was a mixture of the flavone glycosides hesperidin and eriodictin and called citrin. Since that time data have been accumulated which indicate that crude preparations of citrin do indeed influence the capillary state in both experimental and clinical conditions, quite distinct from the action of ascorbic acid. A further important advance in chemical and physiologic knowledge of vitamin P now comes in a preliminary communication [2] from the University of Southern California School of Medicine. The yellow eriodictin of Szent-Györgyi has been demonstrated to be in chemical equilibrium in solution with hesperidin and explains the difficulty encountered by Szent-Györgyi and his colleagues in the separation of these substances. That this equilibrium is influenced by the acidity of the solution was established by transformation of one compound into the other and isolation of each in crystalline form. The eriodictin of Szent-Györgyi was established as the chalcone form of hesperidin, and this chalcone was demonstrated to be reversibly oxidized and reduced. These properties led to the suggestion that this chalcone might be present in the lemon peel in combination with a protein as part of a tissue enzyme system. It was possible to prove the validity of this suggestion by isolation of the intact protein complex from an aqueous extract of lemon peel. The chalcone-protein complex was found to be easily reduced by sodium thiosulfate and to be reoxidized by oxygen. Moreover, the complex was capable of participating as a hydrogen transporter in the glutamic acid dehydrogenase test system obtained from liver tissue. Since the chalcone is autooxidizable, it can increase the oxygen consumption of such a respiratory system under aerobic conditions. Preliminary experiments have also indicated that the chalcone exerts a beneficial effect on the state of the capillaries, decreasing the fragility and preventing localized hemorrhages. The characterization of the chalcone-protein complex has served to emphasize again the close relationships which may exist between vitamins and certain of the respiratory enzymes. Vitamin P will probably take its place as a component of one of the enzyme systems concerned with hydrogen transport and energy production in plant and perhaps animal tissues.

1. Armentano, L.; Bentsáth, A.; Béres, T.; Rusznyák, S., and Szent-Györgyi, A.: Deutsche med. Wchnschr. **33**: 1325 (Aug. 14) 1936. Szent-Györgyi, A.: Ztschr. f. physiol. Chem. **255**: 126, 1938.
2. Wawra, C. Z., and Webb, J. L.: Science **96**: 302 (Sept. 25) 1942.

SODIUM SALTS OF THE SULFONAMIDE COMPOUNDS

Despite the greater bacteriostatic effect in vitro of sulfadiazine and sulfathiazole and their greater resistance to drug inhibitors when compared with sulfanilamide, the latter has been preferred, according to Fox,[1] for local use in war wounds, compound fractures and the peritoneum. Sulfanilamide has the advantage of relatively high water solubility, which facilitates its ready penetration and spread in the local area and rapid absorption into the circulation. Fox points out, however, that sulfathiazole and sulfadiazine are almost completely ionized in the body fluids, whereas sulfanilamide is but slightly ionized. The relative acidity of sulfadiazine suggested that its low water solubility could be increased in a physiologic buffer, in which it would exist in large proportions as the extremely soluble ionized sodium salt. The fact that sodium salts of these drugs are only moderately alkaline made feasible their local use. In dogs Fox demonstrated that sodium sulfadiazine in high concentration caused little irritation to the tissues and that, following intramuscular or intraperitoneal implantation, the drug is continuously transferred from the site of implantation to the general circulation over periods of twenty-four to forty-eight hours. Thus the disadvantages in the local use of these more potent bacteriostatic drugs appear to be circumvented by using their more soluble sodium salts. The results of the animal experiments warrant clinical trial of the local application of the sodium salts of sulfathiazole and sulfadiazine.

1. Fox, C. L., Jr.: Sodium Salts of the Sulfonamide Compounds, Arch. Surg. **45**: 754 (Nov.) 1942.

MEDICINE AND THE WAR

In this section of The Journal each week will appear official notices by the Committee on War Participation of the American Medical Association, announcements by the Surgeon Generals of the Army, Navy and Public Health Service, and other governmental agencies dealing with medicine and the war and such other information and announcements as will be useful to the medical profession.

ARMY

THE BUSHNELL GENERAL HOSPITAL

The U. S. Army General Hospital recently constructed at Brigham City, Utah, has been named in honor of the late George Ensign Bushnell, for many years a distinguished officer of the medical corps, known especially for his clinical and research work on tuberculosis. The Bushnell General Hospital has a capacity at present of nearly 1,600 beds, which are not, however, limited to the treatment of patients with tuberculosis and most of which as yet have been utilized for general medical and surgical patients. The two story buildings with yellow brick facing are of semipermanent construction. The commanding officer is Col. Robert Morris Hardaway, the executive officer Lieut. Col. V. Robert Hirschmann, the registrar Col. Paul Quinton Stansell, the director of personnel Major Hans Will Lawrence and the receiving and evacuation officer Major Norman Walter Drey.

The additional professional staff consists of Lieut. Col. James Shirley Sweeney, chief of the Medical Service; Major Henry George Hollenberg, chief of the Surgical Service; Major Olin Burnham Chamberlain, chief of the Neuropsychiatric Service; Major Francis Patrick Carrigan Jr., chief of the X-Ray Service, and Major Frank B. Queen, chief of the Laboratory Service.

Subsection chiefs on medical service are Major Alvin Beckham Mullen, tuberculosis subsection; Major Marsh William Poole, communicable disease subsection; Major Rudolph Alfred Kocher, assistant to chief of medical service, and Capt. Jerome S. Levy, chief of the gastrointestinal subsection.

Subsection chiefs of the surgical service are Major Max Theodore Schnitker, assistant to the chief of the surgical service; Major John E. L. Keyes, chief of the eye, ear, nose and throat subsection; Major Ernest Edgar Myers, chief of the orthopedic subsection; Major Leander William Riba, chief of the urology subsection; Major Clyde Strickler Roof, chief of the general surgery subsection; Capt. John Merar Walker, chief of the septic surgery subsection, and Capt. Ralph Curtis Farrington, chief of the anesthetic and operating subsection.

THE ROCHESTER (N. Y.) GENERAL HOSPITAL UNIT

The nineteenth U. S. Army General Hospital Unit, almost all of the medical officers of which were members of the staff of the Rochester General Hospital, has been on duty at Camp Livingston, La., since July 15.

The following medical officers are on duty with the nineteenth general hospital unit:

Col. Edward T. Wentworth
Lieut. Col. Walter A. Fenstermacher
Lieut. Col. Lloyd F. Allen
Major Robert J. Galbraith (D. D. S.)
Major Fred W. Geib
Major Jacob D. Goldstein
Major Louis A. Goldstein
Major Don K. Hutchens
Major John F. Kellogg Jr.
Major George R. Lavine
Major Ralph Lingeman
Major William A. MacVay
Major Alvah S. Miller
Major Christopher Parnall Jr.
Major Libby Pulsifer
Major Ellis B. Soble
Capt. Willard J. Chapin
Capt. Robert L. Donald
Capt. Edward W. Douglas
Capt. Eugene R. Duggan
Capt. Frank S. French
Capt. Conrad E. Good
Capt. Orrin Greenberg (D. D. S.)
Capt. Leonard Horn
Capt. Burdette H. Koop (D. D. S.)
Capt. George McLoughlin
Capt. David S. Parker Jr.
Capt. Arthur E. Rappeport
Capt. Charles D. Reeves
Capt. Edwin T. Tellman
Capt. Eugene Vernon
Capt. Frank A. Wood
Lieut. Beverly W. Armstrong
Lieut. Thomas Boyd Bolitho
Lieut. David Ennis
Lieut. Arthur F. Fisher (D. D. S.)
Lieut. Ernest Foss Jr.
Lieut. R. Grant Howard
Lieut. Ralph F. Jacox
Lieut. Jos. W. McHugh (D. D. S.)
Lieut James B. Thompson
Lieut. George M. Trainor
Lieut. Robert J. Willoughby
Lieut. Philip M. Winslow

The Rochester General Hospital has also provided medical officers for the Navy, so that at present in all seventy-one members of the visiting staff of the Rochester General Hospital have been commissioned in the armed forces.

ROGER BROOKE HOSPITAL

The station hospital at Fort Sam Houston, Texas, has been designated a general hospital and named in honor of the late Brig. Gen. Roger Brooke of the U. S. Army Medical Corps.

NAVY

NAVAL HOSPITAL AT PEARL HARBOR CITED FOR SERVICE

Admiral Chester W. Nimitz, commander in chief of the Pacific Fleet, awarded a blanket citation of an entire unit, an unusual honor, to the staff of the U. S. Naval Hospital at Pearl Harbor for its meritorious service on Dec. 7, 1941. The citation is as follows:

For meritorious achievement and distinguished service subsequent to the Japanese air attack on the United States Pacific Fleet at Pearl Harbor, Territory of Hawaii, on December 7, 1941. At the time of the attack and afterward, this unit displayed conspicuous devotion in the line of duty. Its ability to cope with this disaster was responsible for the successful care of all casualties and the saving of many lives. The professional skill displayed and distinguished service rendered by this Hospital Unit were in keeping with the highest traditions of the naval service.

Capt. Reynolds Hayden, M. C., U. S. Navy, now medical officer of the third naval district, was in command of the Naval Hospital at the time of the Japanese attack on Pearl Harbor. Capt. J. J. A. McMullin, M. C., U. S. Navy, is the present commander of the Pearl Harbor hospital.

LIEUTENANT KEARNEY AWARDED LETTER OF COMMENDATION

Lieut. (j. g.) Edward A. Kearney, M. C., U. S. Navy, of the Bronx, New York, has been awarded a letter of commendation by Secretary of Navy Frank Knox for serving with distinction in the U. S. S. *Yorktown* during the Battle of the Coral Sea.

The letter of award read as follows:

The Department has been informed of the distinguished service rendered by you as Junior Medical Officer of the U. S. S. *Yorktown* in action against the enemy in the Coral Sea on May 8, 1942. On the explosion of an enemy bomb which hit the ship, you went immediately to the scene of the damage. As soon as you were able, you entered the compartment, which was still blazing and full of smoke, and, under difficult conditions, made immediate examinations to determine which of the men were still alive. You personally directed the rescue of those who showed signs of life and immediately rendered medical attention which undoubtedly resulted in saving the lives of several men who were seriously burned or otherwise seriously wounded. Your conduct throughout was in keeping with the best traditions of the Naval Service. For your courage, skill and perseverance on this occasion you are hereby commended.

MISCELLANEOUS

PUBLIC HEALTH UNDER HITLER

According to *Das Reich* of September 13 the business done by one large Berlin chemist's shop is described as follows: The shop is closed for the lunch hour, and by the time it reopens at 3 p. m. a queue of about thirty people is waiting. Even when the shop reopens, the queue does not disappear; new people constantly take their place in it, and it remains more or less constant until the shop closes for the night. Only a small proportion of the customers at this chemist's shop bring a medical prescription; most of them want preparations which they expect to get without first calling on a doctor. They ask for anodynes, grape sugar preparations, malt preparations, tonics, vitamin preparations and many different things which they think will make up for imaginary shortcomings of nutrition or compensate the actual or imaginary consequences of some affliction caused by the present conditions. Many of the preparations asked for are not available. If by some chance some food preparation which is in great demand is available in limited quantities, customers frequently return two or three times to the same chemist's shop in order to hoard it. This particular chemist's shop is visited by three thousand people every day. But only roughly one thousand of them actually buy things, and the other two thousand have to leave the shop without having been able to satisfy their frequently extraordinary demands. It is not astonishing, therefore, that the public gets the impression that there are gaps in the supply of medical preparations for the population. But this is not borne out by the actual facts. In reality the average turnover of chemists' shops has increased from 40,000 to 97,000 reichsmarks.

The truth is that, by often exaggerated methods of publicity, factories and chemists before the war had given rise to a veritable mania for medical preparations. Numerous people got used to certain preparations which they thought made life easier for them but which in reality were not only unnecessary but, if used constantly, even harmful. That applies particularly to the large number of anodynes and sleeping drugs, most of which today require a prescription, and to many other preparations which are habit forming. During the war the production of precisely these preparations has been restricted. The fact that they are no longer obtainable has nothing whatever to do with the supply of really vital medical preparations for serious cases of illness.

In view of the large number of brands of even important medical preparations, obviously it is possible to find at least one parallel preparation for almost every existing preparation which will have identical effects, for all these preparations are as a rule made of the same basic materials. Undoubtedly the pharmaceutical industry is performing a great service by producing so many branded preparations, for the chemist would not today be in a position to make up all prescriptions in his own laboratory simply because he lacks the necessary labor. One thing is certain: for all serious cases of illness the medicine which is needed is available even today in every case. In the chemist's shop which has been quoted as an example the war has made large gaps in the staff. Normally this shop employs six qualified dispensers. Today it is working with only two qualified people. Among the eight thousand two hundred chemist's shops in the reich, of which seven hundred are in Berlin, there are many in which the proprietor has been working on his own. To help him, every dispenser who has passed his state examination has to work for four months in a chemist's shop in which the proprietor is working on his own. A large number of preparations have since the outbreak of war been made subject to purchase permits or prescriptions, and the chemist who sells them without either makes himself punishable. Among these are all fats and oils, including castor oil, soaps, certain foreign drugs, all preparations containing estrogenic substances, sleeping drugs, barbituric acid and its derivatives.

Stefani of October 1 reports that during the last two years the minister of foreign affairs sent to Bulgaria and Rumania Prof. Eugenie Morelli, director of the Forlanini Institute, who, on the initiative of Italian cultural institutions, gave lectures on the treatment of pleurisy. The Bulgarian minister of war has adopted Professor Morelli's treatment for military hospitals; a commission of Bulgarian army doctors remained for some time at the Forlanini Institute to learn how to apply this treatment.

According to *Pesti Hirlap of* September 3 the military are taking over the Margaret Island club house of the Magyar Athletic Club for use as an orthopedic hospital for soldiers.

Pesti Hirlap of August 30 reports the handing over of the (Tamas) Eszterhazy chateau at Papa for use as a military hospital.

According to NDZ of October 8, the length of the war is beginning to make itself increasingly felt in the sphere of medical supplies. To allay any unfounded fears, the reich leader of pharmacists, Schmierer, has issued a statement emphasizing that there are no worries of a serious nature concerning the supply of medical preparations; supplies are perfectly secure in the future too, provided people do not make unreasonable demands. There are fixed quotas of medicines for civilian consumption which are being distributed by the local chambers of pharmacists according to careful plans. Not only is distribution of almost all preparations controlled, but the preparations themselves are subject to supervision by the competent reich authorities. Transport difficulties such as occurred last winter may of course interrupt supplies temporarily.

Meanwhile the control of medical supplies has entered the stage of planned production. Further measures of rationing are to be expected, and so are measures to relieve the packing difficulties which have repeatedly hampered supplies in the past. In order to restrict the excessive consumption of medicines, certain kinds will be available only on a doctor's prescription. Moreover the excessive and even harmful consumption of medicines must be reduced by means of publicity. It is absurd to carry through a vitamin campaign in the summer when fruit and vegetables are available. It is always the same articles which are in excessive demand, and often quite unreasonable demands have been created by advertising. But for this there would be more than sufficient quantities for everybody who needs them. Hoarding must be avoided at all costs. For instance, in the case of cod liver oil the quantity is sufficient for all cases of need. There are also sufficient supplies of dressings. All difficulties will be overcome if the public behaves reasonably and if the doctors and the pharmacists cooperate closely.

AMERICAN DOCTORS ON ACTIVE SERVICE IN NEW ZEALAND

An editorial tribute appears in the October issue of the *New Zealand Medical Journal* acknowledging the presence in New Zealand of American physicians on active service. "Their arrival has strengthened and encouraged us; first, because of all it implies to the welfare of our country, and, second, because of the benefits which collaboration with them will bring to our professional work. It is not too much to venture the statement that New Zealand medicine will experience a lasting benefit from this new influence. One and all we welcome the opportunity of meeting American colleagues, whose medical education and traditions are so similar to our own. It is no small matter that our hospitals have already experienced the stimulus of seeing and sharing in the work of senior members of the staff of American institutions, whose names are household words throughout the empire. We recognize in our new found friends men of high purpose and great personal charm, with whom we have much in common."

MEDICAL AND SURGICAL RELIEF COMMITTEE

The Medical and Surgical Relief Committee of America, 420 Lexington Avenue, New York City, furnished supplies during the last month valued at more than $5,000 to relief agencies and the armed forces. The shipments included 8 emergency medical field sets, 3 operating sets, 1 transfusion set, 2 cystoscopes, 250,000 sulfanilamide tablets, 225 vials of gas gangrene vaccine, 610 vials of insulin and other supplies. These materials were contributed by various pharmaceutical and surgical manufacturing companies.

ORGANIZATION SECTION

MEDICAL ECONOMIC ABSTRACTS

HEALTH INSURANCE IN CANADA

The discussion of health insurance in Canada has followed much the same line as in the United States. The Canadian Medical Association adopted a series of principles that were considered as expressing the attitude of the medical profession in regard to any plan that might be adopted. The opinion of the membership of the association was sought and upward of three thousand replies were received, of which 90 per cent favored the adoption of the principles "which, over a period of ten years, had been studied and revised by the association and its component parts." At a consultation between the Health Insurance Committee of the Canadian Medical Association and the Advisory Committee on Health Insurance established by the dominion government, July 17, 1942 the association committee stated that it had but one desire, namely to cooperate with constituted authority in devising plans which would provide the best possible medical service for the people of Canada. The Canadian Medical Association is not sponsoring health insurance or any other "group plan" of practice, but the association believes that it has a duty to perform in offering its best advice to any government (national or provincial) which undertakes to promulgate a health insurance scheme. Moreover, by an overwhelming majority vote the medical profession authorized the association to take such action.

The presentation of these twenty health insurance principles "is not the formulation of a health insurance act but should be regarded as the framework or the planks around which and out of which an act may be built. As has already been stated, the Canadian Medical Association is not advocating health insurance or proposing any draft legislation." With this understanding the following principles were submitted with an explanation and discussion of the reasons why each was approved:

1. That in the provinces where health insurance is established it be administered under an independent health insurance commission, the majority of whom shall be representatives of organized medicine. There should be close cooperation between this commission and the provincial department of public health with a view to making full use of preventive services.

2. That a central health insurance board and local insurance boards be appointed, representative of all interested, to advise the responsible administrative authority.

3. That the professional side of health insurance medical service be the responsibility of the organized medical profession through the appointment of a central medical services committee and local medical services committees to consider and advise on all questions affecting the administration of the medical benefit.

4. That the question of the establishment of local areas for health insurance administration be left to the decision of the individual province.

5. That the whole province be served by adequate departments of public health, organized where possible on the basis of provision of individual health supervision by the general practitioner.

6. That regional medical officers to act as supervisors and referees be appointed, paid and controlled by the commission.

7. That medical care for indigents and transient indigents be provided under the plan, the government to pay the premiums of the indigents, who then receive medical care under exactly the same conditions as other insured persons.

8. That the plan be compulsory for persons having an annual income below a level which proves to be insufficient to meet the costs of adequate medical care.

9. That the dependents of insured persons shall be included in the medical benefits.

10. That the only benefit under the plan be the medical benefit.

11. That the medical benefit be organized as follows:

(*a*) Every qualified licensed medical practitioner to be eligible to practice under the plan.

(*b*) The insured persons to have freedom of choice of medical practitioner and vice versa.

(*c*) The medical service to be based on making available to all a general practitioner service for health supervision and treatment of disease.

(*d*) Additional services, to be secured ordinarily through the medical practitioner.

(1) (*a*) Specialist medical service.
(*b*) Consultant medical service.
(2) Visiting nurse service (in home).
(3) Hospital care.
(4) Auxiliary services—usually in a hospital.
(5) Pharmaceutical service.

(*e*) Dental service, arranged direct with dentist or on reference.

12. That the insurance fund should receive contributions from the insured, the employer of the insured and the government.

(*a*) Payment of the premium of the insured, in certain proportions to be determined, should be made by the employee, employer and government.

(*b*) Where an insured person has not an employer or where it is not practical for the government to collect from the employer, the government should pay in for that insured person what would be the employer's share as well as its own share of the premium.

(*c*) Where the insured is "indigent" or has been out of work long enough to come within the scope of the provisions of the act as relating to an insured employee, the government should assume payment of the full premium.

13. That the medical practitioners of each province be remunerated according to the method or methods of payment which they select.

14. (*a*) That the schedule of fees in any health insurance scheme shall be the schedule of fees accepted by the organized profession in the province concerned.

(*b*) That all schedules of fees be under complete control of the organized medical profession in each province.

15. That the contract-salary service be limited to areas with a population insufficient to maintain a general practitioner in the area without additional support from the insurance fund.

16. That no economic barrier be imposed between doctor and patient.

17. That the best possible standard of service be required of the professions and that the remuneration of the professions be consistent therewith.

18. That provision be made for clinical teaching material for medical schools, that facilities be provided for research work and that time be allowed for postgraduate work.

19. That the plan be actuarially studied and approved before being adopted, and actuarially checked at periodic intervals.

20. That some plan be devised for the provision of pensions for medical practitioners.

The Principles of Health Insurance by T. C. Routley, M.D., LL.D., F.R.C.P.(C), General Secretary, Canadian Medical Association, Canad. M. A. J. **47**: 367 (Oct. 1) 1942.

MEDICAL OUTLOOK IN AUSTRALIA

That the war and peace will bring great changes in the organization of medical services in Australia was emphasized by Dr. W. F. Simmons in his presidential address at the annual meeting of the New South Wales Branch of the British Medical Association. While conceding the inevitability of such changes, he questioned whether they constituted the best approach to the problem of medical care:

"Are we not, however, approaching the whole problem from the wrong angle? Has our social legislation advanced so far that the provision of a medical service is the last link in a complete chain of national regeneration?

"Is it not more necessary to provide adequate and decent homes, the right food, good working conditions, a reasonable wage and sufficient recreational and educational facilities, which combined would diminish the sickness incidence greatly, rather than provide a complete medical service to treat and, if possible, cure diseases which are the result of lack of any or all of these decencies of life?

"If these problems were honestly tackled by any government and if the question of preventive medicine received reasonable consideration at the hands of our political leaders, then I feel that there would be a wonderful opportunity for the profession to cooperate in producing a service which would be in the best interests of Australia and worthy of the men and women providing it.

"If, however, these conditions seem too ideal, what are the alternatives? Briefly, the possibilities are as follows:

"1. Medical practice will continue as at present.

"2. The profession will be nationalized; I mean thereby that most members of the profession will be salaried officers of the state (compare teachers of the Education Department), but medical practitioners will still be allowed to carry on private practice if they so desire.

"3. A form of national insurance will be introduced based on a contributory system of payment such as has been introduced in New Zealand. Such a system would provide only a general practitioner service, and specialists' services would be provided by private practitioners, by hospitals or by a combination of the two.

"4. A complete system of national insurance on a contributory basis will provide a complete medical service, the general practitioner being paid on a per capita basis and the specialist from a pool.

"5. A system will be created whereby a great part of medical practice is carried on by medical practitioners paid on a salaried basis but still retaining the right of private practice.

"6. A scheme of voluntary insurance will be drawn up by the profession itself."

Nationalization of medical service has already been proposed. Concerning this alternative, Dr. Simmons says "The public would be regimented. There would be no free choice of doctor. The family physician, who has been guide, philosopher and friend to countless thousands, would be replaced probably by a good doctor, but he would remain the servant of a large department with no choice as to the area in which he worked or to the length of time in which he remained in any one area. Promotion would be slow, and the larger part of a practitioner's professional life would be over before he became a senior."

The speaker seemed to favor the sixth alternative:

"The provision of a voluntary insurance by the profession itself is by no means new. In 1911 the late Dr. F. Antill Pockley, then a leader in association matters, put before this branch his scheme for a voluntary medical service. The premium rate depended on the class of service required. This service was for those ineligible for friendly society benefit on account of their higher income. The premium rate was from five to ten pounds per annum according to the service required. In the last postwar period the parent body put forward its scheme for a public medical service for those whose income exceeded that of the National Health Insurance Act and also for those who were excluded from its benefit for other reasons. Where properly organized, these services are supplying a public need and are growing in popularity. The schemes put forward in our own state by the practitioners at Scone and Canberra have not been able to develop as we should like to see them develop on account of war conditions."

Presidential address of W. F. Simmons, read at the annual meeting of the New South Wales Branch of the British Medical Association on March 26, 1941, M. J. Australia **1**: 483 (April 25) 1942.

CALIFORNIA BASIC SCIENCE ACT DEFEATED

By a vote of 618,908 against to 385,444 in favor, the Basic Science Initiative, sponsored by the California Medical Association, was defeated at the election on November 3. Only four counties gave a favorable vote; of these San Francisco County gave the largest affirmative majority. Nearly $60,000 was expended by the California Medical Association in preparation of the act, securing signatures and in efforts to educate the voters to its desirability. The cultists and quacks, of which California seems to have more than its share, conducted a vicious "smear" campaign. Some of the advertisements consisted of personal attacks on Dr. Ray Lyman Wilbur, who for some reason was selected as the target for abuse, and might serve as examples for Goebbels in their lack of veracity and violence of language.

WOMAN'S AUXILIARY

Iowa

Members of the Polk County auxiliary have served as hostesses at the USO in Des Moines on the first and third Wednesdays of each month since last April. Ten members furnish the refreshments and four serve them.

New Jersey

The Woman's Auxiliary to the Essex County Medical Society has collected 7,500 pounds of wool clippings worth about $700. This work is being carried on in cooperation with the Newark chapter of the American Red Cross.

The auxiliary is also furnishing a recreation room and living room for the doctors and nurses on the staff of Camp Kilmer Hospital.

Three emergency medical field sets valued at $330 were contributed by the Woman's Auxiliary to the Bergen County Medical Society to the Medical and Surgical Relief Committee of America and consigned to the Hackensack Hospital, the Englewood Hospital and the Holy Name Hospital at Teaneck. One emergency medical field set was contributed by the auxiliary to the Middlesex County Medical Society to the Medical and Surgical Relief Committee of America and consigned to the Naval Supply Depot in Bayonne.

Texas

The Harris County auxiliary entertained, September 15, at River Oaks Country Club, Houston, honoring Mrs. Peyton R. Denman president of the state auxiliary, and Mrs. M. L. Graves, honorary life president of the state auxiliary. Mrs. William Lapat and her daughter provided the musical program. About 150 members and guests attended.

The Thirteenth (northwest Texas) District auxiliary met, September 15, at Fort Worth, with representatives from five counties in the district present. Dr. H. M. Williams, acting health officer of Fort Worth and vice chairman of the Emergency Civilian Defense, spoke on civilian defense. Mrs. Horace Kibbie of Fort Worth spoke on the "Place of the Auxiliary During the World Conflict."

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION AND PUBLIC HEALTH.)

ALABAMA

Changes in Health Officers.—Dr. John L. Dorough, Buffalo Cove, N. C., has been elected health officer of Cleburne with headquarters in Heflin.——Dr. Garland L. Weidner, Elba, health officer of Coffee County, is now also in charge of Geneva County.

CALIFORNIA

Expansion of Sterilization Program Recommended.—At a conference of sixteen state institutions in Sacramento on November 12, it was recommended that the state's sterilization program be expanded to include persons found by courts to be sexually psychopaths and psychopathic delinquents. Extension of the program as recommended would require additional and specific legislation according to Dr. Fred O. Butler, Eldridge, acting director of state institutions. Newspaper reports pointed out that the existing law governing state insane asylums and homes for the feebleminded provides for sterilization by the state for persons adjudged by the courts to be feebleminded or afflicted with certain types of insanity.

High School Students Eligible for College Training Before Acceptance in Military Service.—The board of trustees of Stanford University has voted to accept as first year students, beginning with the opening of the winter quarter on January 5 a limited number of highly competent students who have qualified for the senior year in high school. According to *Science*, this plan will permit boys and girls 16 and 17 years of age to have at least one year of college life and work before being called to military service and will give the university an earlier opportunity to secure for the military and other war services young people qualified in such technical fields as medicine, engineering, chemistry, physics, mathematics, military science, industrial management, bacteriology, nursing, geology, mining, foreign languages, government, economics and nutrition. All curriculums will be coordinated with the needs of the Army, Navy and other governmental services and particularly with the requirements of the postwar world, it was stated.

DISTRICT OF COLUMBIA

Latin American Radiologist on Tour.—Dr. Leonardo Guzmán, director of the Chilean National Radium Institute of Santiago, Chile, and formerly minister of public education, minister of the interior and director general of health, arrived in Washington on November 25 for a two months visit to leading cancer research and x-ray centers in this country as a guest of the Department of State. Well known in South America as a cancer specialist, Dr. Guzmán will observe recent developments in the field of cancer research and treatment in several research centers in the United States. Included among his published works are the History of the Progress of Surgery During the Past Hundred Years and The Life of the Curies.

ILLINOIS

Concentrated Program for Patients with General Paralysis.—The state department of public health and the state department of public welfare have made arrangements whereby patients in danger of developing the symptoms of general paralysis will be given a two to three weeks' course of fever therapy in the state mental hospitals, according to the *Welfare Bulletin*. The nine state mental hospitals located at Chicago, Elgin, Manteno, Kankakee, Peoria, Jacksonville, Alton, Anna and East Moline have set aside sufficient beds and personnel so that these patients can be given a minimum of twelve "fevers" of several hours' duration, with a temperature of 103 F. or higher. The treatment takes two to three weeks, depending on the rapidity with which enough high "fevers" are secured. As far as possible, the nonpsychotic patients entering the state hospitals for this purpose will be segregated from regularly committed psychotic patients. The patients will be received by the nine mental hospitals without voluntary or involuntary commitment papers provided they have been properly certified as being appropriate patients for this type of treatment by the designated health officer of the state department of health. Physicians and clinics wishing to refer patients to the state hospitals for fever therapy to prevent general paralysis should get in touch with any of the following, not with the state hospital but with the health officer of the designated area:

Chicago State Hospital (Dunning) Dr. Edward A. Piszczek, health officer of Cook County.
Elgin State Hospital, Dr. Felix A. Tornabene, Chicago.
East Moline State Hospital, Dr. Cornelius E. Kline, Moline.
Peoria State Hospital, Dr. Sandor Horwitz, East Peoria.
Manteno State Hospital, Dr. Abraham J. Levy, Gilman.
Kankakee State Hospital, Dr. Levy.
Jacksonville State Hospital, Dr. Frank E. McCord.
Alton State Hospital, Dr. Norman J. Rose, Highland.
Anna State Hospital, Dr. Roy W. Harrell, Carbondale.

The *Welfare Bulletin* points out that this fever therapy program should prove a valuable addition to the welfare department's program of preventing the unnecessary long time custodial care of patients in institutions through the execution of active preventive and therapeutic procedures.

Chicago

Officers of Institute of Medicine.—Dr. Ludvig Hektoen was chosen honorary chairman of the board of governors of the Institute of Medicine of Chicago at its annual meeting, December 10. Dr. William F. Petersen was chosen chairman of the board. Other officers are Frederick B. Noyes, D.D.S., president; Drs. Clifford G. Grulee, vice president; George H. Coleman, secretary, and Grant H. Laing, treasurer.

Dr. Caldwell Resigns as Executive Secretary of Hospital Association.—Dr. Bert E. Caldwell, for fifteen years executive secretary of the American Hospital Association, has resigned, effective on the appointment of a successor. Dr. Caldwell has also been editor of the association's publication *Hospitals* since its establishment seven years ago. Dr. Caldwell graduated at Barnes Medical College, St. Louis, in 1898.

New Psychiatric Training at Illinois Institute.—The Illinois Neuropsychiatric Institute recently started a twelve week affiliate course in psychiatric and neurologic nursing. This is the first group of student nurses ever to have classes and clinical experience on the Chicago campus of the University of Illinois. The first school to send students was the School of Nursing of the Presbyterian Hospital. The state is at present providing instruction and experience in psychiatric nursing at both the State School of Psychiatric Nursing functioning at Chicago State Hospital and the School of Nursing at Peoria State Hospital, Peoria. The new affiliate course is intended to augment the already existing facilities of the state in this field. The neuropsychiatric institute was dedicated on June 6, 1942 (THE JOURNAL, June 6, p. 506) and is under the joint supervision of the Illinois Department of Public Welfare and the University of Illinois. Its purpose is teaching and research in the field of nervous, mental and behavior disorders.

Physicist Named Head of Parmly Foundation.—Peter J. Mills, M.S., head of the department of physics and of mathematics at Thornton Junior College, Harvey, Ill., has been appointed director of the Parmly Foundation for Auditory Research. Mr. Mills graduated at the University of Chicago. An advisory committee has been appointed comprising the following: Dr. John S. Coulter, associate professor and in charge of the department of physical therapy, Northwestern University Medical School; Howard Carter, B.S. in M.E., secretary of the Council on Physical Therapy, American Medical Association; Haldon A. Leedy, Ph.D., and Donald E. Richardson, M.S., physicist, Armour Research Foundation; Jesse E. Hobson, Ph.D., director, and Paul G. Andres, E.E., professor, of the Illinois Institute of Technology electrical engineering department; James S. Thompson, Ph.D., director, and Paul L. Copeland, Ph.D., professor, department of physics at the institute of technology. Dr. Mills will serve as chairman of the advisory committee. The foundation, which was just established this fall (THE JOURNAL, November 7, p. 774), will seek to solve problems of hearing through research. Regarding hearing difficulties as a biophysics problem, the Parmly Foundation will concentrate its work on the physics of hearing. Additional appointments to the advisory committee, particularly from the medical field, will be made by the foundation so that cooperation with the medical profession in regard to other aspects of the field may be obtained. The Parmly Foundation is located in the physics building on the south campus of the Illinois Institute of Technology, 3323 Federal Street.

INDIANA

First Presentation of Oberlin Award.—In recognition of exceptional services to public health in past years, the Lake County Medical Society at its annual meeting in Hammond, December 11, made the first annual presentation of the Oberlin Award to four laymen. The award was created this year in memory of the late Dr. Thomas W. Oberlin, Hammond, one of the society's charter members. The four recipients were H. B. Snyder, editor of the Gary *Post-Tribune;* Sidmon McHie, publisher of the Hammond *Times;* Frank L. Hoess, Hammond, for services nominally credited to him in 1939 and, posthumously, William P. Gleason, former general superintendent of Gary works, who was instrumental in building the James O. Parramore Hospital, Crown Point, for services in the years from 1918 through 1936. This marked the first presentation of the award, which in the future will be made annually to but one or two men, women or institutions not directly associated with the healing arts and only in those years when qualified recipients can be selected. The award is in the form of an engraved silver plaque and is presented by the society (THE JOURNAL, August 29, p. 1515) "in recognition of significant contributions to the health and consequent welfare, security and happiness of the people of Lake County."

IOWA

Society News.—A panel discussion on the sulfonamides was held before the Polk County Medical Society in Des Moines, December 16, under the direction of Dr. Daniel J. Glomset, Des Moines. The society was addressed on November 18 by Drs. Ivan N. Ingram and Henry Field Jr., both of Ann Arbor, Mich., on surgical and medical aspects, respectively, of nontuberculous chest diseases.

Personal.—Dr. Herbert M. Huston, Ruthven, was honored at a dinner meeting by the Palo Alto County Medical Society in Emmetsburg, October 10, to observe his completion of fifty years in the practice of medicine. Dr. Huston is president of the society.——Dr. Eric P. Pfeiffer, director of the division of vital statistics, Iowa State Department of Health, Des Moines, has been placed on leave in order to return to active duty in the Army.——Dr. Earl L. Kingsbury, Keokuk, was recently elected coroner of Lee County.——Dr. William M. Spear, assistant superintendent of the State Sanatorium at Oakdale, has been appointed superintendent to succeed the late Dr. John H. Peck.

KENTUCKY

Society News.—Dr. James W. Bruce discussed "The Rh Factor in Erythroblastosis of the Newborn" before the Louisville Medico-Chirurgical Society, December 11, and Dr. Harry S. Frazier presented a case report on "Streptococcus Viridans Septicemia Treated with Sulfadiazine."——The Transylvania Medical Society was addressed in Louisville, December 3, by Dr. Earl R. Gernert on "Planigraphy of the Chest."

New Health Center.—Ground was broken on November 30 for the new Louisville and Jefferson County Health Center. The speakers included Mayor Wilson W. Wyatt and Dr. Arthur T. McCormack, state health commissioner. Federal funds will be used to finance the new unit, which, when completed, will cost about $100,000. The center will adjoin the Louisville General Hospital, which is also administered by the department of health, and provide accommodations for health officers who are now housed in five different places. Venereal disease clinics and a general preventive clinic will be included in the building. There will also be a seminar room for the use of the health department staff and for the instruction of medical students in preventive medicine.

Personal.—Dr. Edward E. Landis, associate in psychiatry, University of Louisville School of Medicine, Louisville, has been carrying on the work of Dr. William K. Keller, associate professor of psychiatry, who is on a leave of absence from the university to engage in active service in the U. S. Navy.——James A. Kennedy, Ph.D., professor of public health and bacteriology, school of medicine, has been accepted for a course in tropical medicine at Tulane University of Louisiana School of Medicine, New Orleans, beginning January 4. This is one of the new fellowships recently established by the Association of American Medical Colleges under a grant from the John and Mary R. Markle Foundation (THE JOURNAL, December 19, p. 1329). On completion of the course on February 27 Dr. Kennedy will return to the University of Louisville School of Medicine.——Dr. John P. Wheeler, La Grange, has been appointed superintendent of the new Warren County Tuberculosis Sanatorium at Bowling Green.——Dr. Frank M. Melton, La Grange, has resigned as health officer of Oldham County.

MICHIGAN

Mobile Dental Unit.—A traveling dental office is now being used by the state department of health to prepare 18 and 19 year old youths for military service. The 24 foot trailer has complete dental equipment and x-ray camera and will visit areas where the need is greatest because local dentists are serving in the armed forces. High schools in industrial areas of the state will probably be among the first to be visited by the traveling unit. The Children's Fund of Michigan is conducting a survey in the upper peninsula counties to find areas where need of such services is most serious.

Health for Victory Conference.—"The Health for Victory Conference" was held in the Rackham Educational Memorial Building, Detroit, December 4-5, under the auspices of the Health Council of Metropolitan Detroit and the Council of Social Agencies cooperating with the Wayne County Council of the American Federation of Labor, the Congress on Industrial Organization and other agencies of metropolitan Detroit. A symposium on "Community Health Needs and Resources" opened the meeting. Dr. William W. Bauer, director of the bureau of health education of the American Medical Association, Chicago, addressed the evening session on "Americans, Live Longer!" Saturday the program consisted of three panel discussions on the health of children, adult health and the health of the industrial worker. The afternoon session was devoted to a consideration of "Health and Welfare of the Nation at War" and panel discussions on occupational diseases, feeding the family and industrial accidents and their prevention.

NEW YORK

War Medicine and Surgery.—A postgraduate course on war medicine and surgery will be given for the Oneida County Medical Society at the Utica State Hospital, Utica, under the auspices of the state medical society and the state department of health. Dr. Foster Kennedy, New York, will deliver the first lecture in the series, January 26, on "Nervous Conditions Associated with Warfare," Dr. Philip D. Wilson, New York, February 2, "General Principles of Treatment of War Injuries," Dr. Forrest O. J. Young, Rochester, February 9, "The Care of Soft Tissue Injuries," and Dr. James H. Lade, Albany, February 16, "Epidemiology and Control of Syphilis."

State Committee on Child Care.—Miss Elsie M. Bond, assistant secretary and executive secretary of the Welfare Legislation Information Bureau of the State Charities Aid Association, has been appointed chairman of the committee on child care, development and protection of the New York State War Council. Miss Bond will spend about half her time in Albany to organize and direct the work of the new committee. She will continue to serve the State Charities Aid Association in administrative matters and in conducting legislative information. The function of the new committee is to assist the localities in meeting the problems of children arising out of the war.

New York City

Welfare Hospital Now Called Goldwater Hospital.—The Welfare Hospital for Chronic Diseases, Welfare Island, has changed its name to the Goldwater Memorial Hospital in honor of the late Dr. Sigismund S. Goldwater, at one time health commissioner of New York.

New Officers of the Academy of Medicine.—Dr. Arthur Freeborn Chace was elected president for a two year term of the New York Academy of Medicine, December 3. Other officers elected include Drs. Cornelius P. Rhoads for a three year term as vice president; Robert E. Pound, three year term as secretary; Malcolm Goodridge and Harold R. Mixsell, five year terms as trustees, and Kirby Dwight to fill the unexpired term of Dr. Chace as trustee through 1943.

Personal.—Dr. Alvan L. Barach and Selig Hecht, Ph.D., received Townsend Harris Medals in recognition of "notable postgraduate attainments" at the sixty-second annual dinner of the Associated Alumni of the College of the City of New York, November 14.——Walter H. Eddy, Ph.D., professor of physiologic chemistry in Teachers College at Columbia University, has been appointed chairman of the department of nutrition and related sciences at the New York Institute of Dietetics.

School Authorities Reject Social Hygiene Instruction.—The city school authorities rejected on December 11 the recommendation of Health Commissioner Ernest L. Stebbins that instruction in social hygiene be given to high school children, according to the New York *Times.* The recommendation was made because of the 20 per cent rise in venereal

infection among boys and girls 15 to 19 years old, it was stated. The board of superintendents had "carefully considered" the plan but had concluded that it was "inadvisable," according to the *Times*.

NORTH CAROLINA

Personal.—Dr. John A. Lineberry, Kenansville, has been chosen health officer of Harnett County to succeed Dr. William B. Hunter, Lillington, who has been called into active service.

Director of School Health Coordination.—Dr. William P. Jacocks, Raleigh, at one time state health officer, has been appointed director of school health coordination in the state board of health. The position is subsidized by the Rockefeller Foundation and is a joint project of the state board of health and the state department of public instruction.

OHIO

World's Fair Exhibit at Cleveland Health Museum.—A group of exhibits from the Hall of Man, New York World's Fair, including "The Transparent Man," are on loan from the American Museum of Health, New York, for the duration. The *Bulletin of the Academy of Medicine of Cleveland* states that considerable repairing and in some cases reconstruction is necessary. The first series will be on display after the first of the year. The second anniversary luncheon meeting of the Cleveland museum was addressed, November 20, by Dr. William W. Peter, formerly medical director of the Navajo Area, Indian Service, Window Rock, Ariz., on "Keep the Health Fires Burning."

New Health Commissioner of Toledo.—Dr. Earl E. Kleinschmidt, since 1938 associate professor and chairman of the department of public health, preventive medicine and bacteriology at Loyola University School of Medicine, Chicago, has been appointed health commissioner of Toledo, succeeding Dr. John L. Lavan, who recently resigned to become director of scientific research for the National Foundation of Infantile Paralysis, New York (THE JOURNAL, October 17, p. 546). Dr. Kleinschmidt graduated at the University of Michigan Medical School, Ann Arbor, in 1930. In the past he has been school physician of the Ann Arbor public schools, instructor in public health and preventive medicine at the University of Michigan Medical School and consultant in health education to the U. S. Office of Education, Washington, D. C.

PENNSYLVANIA

Positions Open in State Health Department.—The Pennsylvania Department of Health, Harrisburg, announces the creation of a merit system and forthcoming examinations under the new system in medicine and its application to public health; nursing and public health nursing; dentistry and dental hygiene; sanitary engineering; state laboratories including opportunities in bacteriology, serology, immunology and related fields; nutrition, vital statistics, accounting, business management, and community and milk sanitation. Appointments will be made from lists established as a result of open competitive examinations, and appointments may be made from these lists during the next three years or longer. Residence requirements are waived for professional positions. Application forms and detailed information may be secured from Charles B. Frasher, merit system supervisor, Department of Health, Harrisburg.

Philadelphia

Special Lectures.—Drs. Cornelius P. Rhoads and George T. Pack, New York, will address the College of Physicians of Philadelphia and the county medical society in a special meeting, March 10, on "Newer Advances in Cancer Research." Dr. Carl F. Schmidt, professor of pharmacology at the University of Pennsylvania School of Medicine, will present the Mary Scott Newbold Lecture before the two societies on April 2. His subject will be "Some Physiological Problems of Aviation."

Fifty Years Service Honored.—On January 12 the Philadelphia County Medical Society will hold a luncheon meeting to honor its members who have completed fifty years or more in the practice of medicine. Certificates will be presented by the state medical society. Included among those who will be honored are Drs. Alexander H. Davisson, William J. Enders, Alfred Hand, Hugh Hanna, Elizabethtown, Pa., Thomas E. Jones, William McKeage, James Herbert McKee, George D. Morton, Honey Brook, Pa., Henry G. Munson, Samuel J. Ottinger, Francis R. Packard, William Egbert Robertson, Robert Ritchie Saunders, Otho Daniel Schaul, George W. Sholler, Melrose Park, Pa., and Philip Adam E. Trau.

RHODE ISLAND

Volunteer Service at Rhode Island Hospital.—About eighty volunteers are giving seven hundred hours of service a week at the Rhode Island Hospital, Providence, and are taking the place of about eighteen paid workers, according to the state medical journal. Recently a volunteer department was created at the hospital. Adequate quarters, office space, lounging rooms and rest rooms were equipped and opened at the hospital, and a part time paid executive was employed to set the plan in operation. The department was placed under the director of social service, and the Nurses Aides and Gray Ladies recruited under the American Red Cross but representing two volunteer groups requiring specialized training in the nursing field were left under the direction of the superintendent of nurses. The first week the program was in operation thirty-nine volunteers other than Nurses Aides and Gray Ladies worked three hundred and twenty-two hours. The state medical journal says that the youngest volunteers are 15 and 16 year old girls who are assigned to the dietary department to peel fruit, butter bread, fill sugar bags and make sandwiches. The oldest volunteer is a 72 year old man, a retired expert accountant, who works in the credit department.

TEXAS

Annual Spring Clinical Conference Canceled.—The fifteenth annual Spring Clinical Conference of the Dallas Southern Medical Society scheduled to be held March 22-25 has been canceled.

District Meeting.—The North Texas District Medical Association met at the Adolphus Hotel, Dallas, November 30. Among the speakers were Drs. Chester M. Jones, Boston, on "Clinical Problems in Hepatic Disease"; James H. Means, Boston, "Diseases Affecting the Portal Circulation"; Lawrence S. Fallis, Detroit, "Diagnosis and Management of Acute Pancreatitis," and Roy B. Henline, New York, "Early Carcinoma of the Prostate."

Grants for Research.—Grants of more than $12,000 made to the University of Texas, Galveston, were recently approved by the board of regents. They include $3,600 from the Research Laboratories of the National Canners Association for riboflavin and pantothenic acid assays to be done under the supervision of Roger J. Williams, Ph.D., director of the institute of biochemistry at the university and discoverer of pantothenic acid; $1,000 from the Williams-Waterman Fund of the Research Corporation of New York, to be devoted to combating dietary diseases, the money to be used by Hugh C. Blodgett, Ph.D., associate professor of psychology, for a study of the effect of thiamine on learning behavior, and $2,500 from Sharp and Dohme, Inc., for research work in the department of surgery by Dr. Edgar J. Poth, associate professor of surgery.

War Program at University.—The University of Texas Medical Branch, Galveston, conducted a special war program for its semicentennial graduation exercises on December 18. Chauncey D. Leake, Ph.D., dean and executive vice president of the university, opened the clinical session with a talk on "Medical Responsibilities of War." Other speakers were Drs. Edward H. Cary, Dallas, on "The Role of Specialist in Military Medicine"; Isidor S. Ravdin, Philadelphia, "A New Era in Military Surgery"; Cyrus C. Sturgis, Ann Arbor, Mich., "Blood and Substitutes in Shock"; Franklin G. Ebaugh, Denver, "Psychiatry and War," and Anton J. Carlson, Chicago, "Obstacles in the Path of an Optimum Diet." Dr. Judson L. Taylor, Houston, president of the state medical association, gave the principal address at the graduating exercises in the evening. Guests of honor were Drs. Edward Randall, Galveston, professor of therapeutics emeritus and Seth M. Morris, Lamarqua, professor of ophthalmology emeritus, who are the two living members from the original faculty of the school.

VIRGINIA

Course in Ophthalmology.—The ninth annual postgraduate course in ophthalmology and otolaryngology was held at the University of Virginia Department of Medicine, Charlottesville, December 8-11. Included among the lecturers were Drs. H. Marshall Taylor, Jacksonville, Fla.; David E. Staunton Wishart, Toronto, Canada; George E. Shambaugh Jr., Chicago; Albert C. Furstenberg, Ann Arbor, Mich.; William Gayle Crutchfield, Charlottesville; Francis H. Adler, Philadelphia; George C. Ham, Charlottesville; Raymond L. Pfeiffer, New York; Vincent W. Archer, Charlottesville; Edmund B. Spaeth, Philadelphia, and Grady E. Clay, Atlanta, Ga.

GENERAL

Grocery Award Goes to Dr. Elvehjem. — Conrad A. Elvehjem, Ph.D., professor of agricultural chemistry at the University of Wisconsin, Madison, and a member of the Council on Foods and Nutrition of the American Medical Association, was presented on November 19 with the eighth annual award of the Grocery Manufacturers of America during its meeting in New York. The group was formerly known as the Associated Grocery Manufacturers of America.

Medical Women's Association Cancels Meeting.—At the midyear board meeting of the American Medical Women's Association in Cincinnati, December 5-6, the plans for the association's annual convention, to be held in San Francisco in June, were canceled because of the war emergency. Instead, another board meeting will be held in Chicago, June 5-6, immediately preceding the meeting of the House of Delegates of the American Medical Association. Dr. Helena T. Ratterman, Cincinnati, president of the association, has appointed Dr. Beulah Cushman, Chicago, to be chairman of this meeting.

Low Mortality Rate in Congress.—A lessening of controversy due to the war and increasing health consciousness are credited by Dr. George W. Calver, physician in attendance on congress, for the fact that 1942 probably produced the lowest congressional death rate in at least twenty-eight years. According to a statement in the Washington *Evening Star*, December 10, only three members of the house have died this year and there have been no deaths in the Senate. The normal house death rate has averaged twelve a year. Dr. Calver said that the 1942 mortality rate was by far the lowest in the twenty-eight years he has been attending physician.

Special Society Elections. — Dr. Eldwin R. Witwer, Detroit, was chosen president-elect of the Radiological Society of North America at its November meeting in Chicago and Dr. Robert S. Stone, San Francisco, was installed as president. Drs. Alfred L. L. Bell, Brooklyn, Davis Spangler, Dallas, and Robert A. Arens, Chicago, were elected vice presidents at the meeting and Dr. Donald S. Childs, Syracuse, N. Y., was reelected secretary-treasurer.——Dr. Rogers Deakin, St. Louis, was elected president of the American Neisserian Medical Society at its eighth annual meeting in Hot Springs National Park, Ark., October 22. Other officers are Drs. Roger W. Barnes, Los Angeles, vice president; Oscar F. Cox, Boston, secretary, and Stafford L. Warren, Rochester, N. Y., treasurer.

Infantile Paralysis Committee Chairmen.—At the third annual medical meeting of the National Foundation for Infantile Paralysis, held in New York, December 3, the following medical advisory committee chairmen were reelected: Dr. Irvin Abell, Louisville, Ky., General Advisory Committee; Commander Thomas M. Rivers, New York, M. C., U. S. Naval Reserve, Committee on Virus Research; Lieut. Col. Philip Lewin, M. C., U. S. Army, Committee on Treatment and Prevention of After-Effects; Drs. Max M. Peet, Ann Arbor, Mich., Committee on Education; Morris Fishbein, Chicago, Editor of THE JOURNAL, Committee on Medical Publications; Herman N. Bundesen, Chicago, Committee on Epidemics and Public Health, and Henry R. Viets, Boston, Diagnostic Committee. Dr. Viets was reelected a vice chairman of the General Advisory Committee, and Dr. Fishbein was elected the other vice chairman. Dr. Anton J. Carlson, Chicago, was reelected chairman of the executive committee of the Committee on After-Effects.

Red Cross Offers Social Service Scholarships.—A program of American Red Cross scholarship aid has been established as one means of increasing the number of qualified medical and psychiatric social workers available for Army and Navy hospitals and medical and psychiatric units. These scholarships will be granted to selected persons interested in training for these fields of social work offering approved curriculums in medical or psychiatric work. Candidates may designate the school of their choice from the approved list. The aid will cover one academic year, two semesters or three quarters. On completion of training, the scholarship student will be expected to fulfil an agreement for two years' employment with the American National Red Cross. Candidates must be between 22 and 40 years of age, must be in good physical health and must have personality qualifications which indicate a likelihood of success in their chosen fields of work. Educational requirements include the successful completion of one academic year of work in an accredited graduate school of social work. The employment agreement of two years assumes that the service will be within the continental limits of the United States unless a student volunteers for Insular or Foreign service. The scholarships provide full tuition and an allowance of $65 a month for maintenance. Application forms may be obtained by writing to area assistant directors of the Military and Naval Welfare Service, Hospital Service or the Personnel Training Unit, Services to the Armed Forces, American Red Cross, National Headquarters, Washington, D. C. Area office addresses are as follows: North Atlantic Area: 300 Fourth Avenue, New York; Eastern Area: 615 North Asaph Street, Alexandria, Va.; Midwestern Area: 1709 Washington Avenue, St. Louis, and the Pacific Area: Civic Auditorium, San Francisco.

Annual Forum on Allergy.—The Fifth Annual Forum on Allergy will be held at the Hotel Statler, Cleveland, January 9-10. On Sunday afternoon Dr. Arthur F. Coca, Oradell, N. J., will receive the Forum's Gold Medal "for outstanding contribution to clinical allergy" and deliver the third annual Forum Lecture on "A Critical Review of Fundamental Knowledge Concerning Allergic Diseases." Study groups will be conducted by:

Dr. Theodore L. Squier, Milwaukee, Allergic Manifestations in the Blood.
Dr. Theron G. Randolph, Ann Arbor, Mich., Chronic Urticaria.
Dr. John P. Henry, Memphis, Tenn., Allergic Headaches.
Dr. Samuel J. Levin, Detroit, Eczema in Children.
Dr. Harry Hauser, Cleveland, Reading Chest Plates in Patients Who Wheeze.
Dr. Ben Z. Rappaport, Chicago, A Clinical Conception of the Mechanism of Allergy.
Dr. Herbert J. Rinkel, Kansas City, Mo., Food Allergy.
Dr. Charles H. Eyermann, St. Louis, Allergic Purpuras.
Dr. J. Warrick Thomas, Cleveland, Allergy of the Eye and Conjunctiva.
Dr. Karl D. Figley, Toledo, Ohio, Vasomotor Rhinitis in Children.
Dr. Stearns S. Bullen, Rochester, N. Y., The Endocrinological Aspects of the Allergic Patient.
Dr. Harry L. Huber, Chicago, Air Conditioning for the Allergic Patient.
Dr. Ethan Allan Brown, Boston, Bacterial Allergy and Infections in Asthma.
Dr. Armand E. Cohen, Louisville, The Diagnosis and Management of Plant Dermatitis.
Dr. Harold J. Friedman, Cleveland, The Evaluation of Drugs Used in Treatment of Allergic Coryza.
Dr. Ralph Bowen, Houston, Texas, The Prevention of Allergy in Children.
Dr. Jonathan Forman, Columbus, Ohio, Nutrition Problems in Allergic Patients.
Dr. George E. Rockwell, Cincinnati, Research in a Private Laboratory.
Dr. Cecil M. Kohn, Kansas City, Mo., Physical Allergy.
Dr. Rudolph M. Hecht, Chicago, Eruptions of the Hands, Their Diagnosis and Management.
Dr. French K. Hansel, St. Louis, Treatment of Nasal Allergy, Specific, Nonspecific and Surgical.
Dr. W. Ambrose McGee, Richmond, Va., Food Allergy and Food Disagreements.
Dr. Samuel M. Feinberg, Chicago, Asthma in Patients Over Forty-Five Years of Age.
Dr. Mary E. H. Loveless, New York, The Immunology of the Atopic Reactions.
Dr. Homer E. Prince, Houston, Allergy to Fungi.
Dr. George L. Waldbott, Detroit, Industrial Allergic Dermatitis.
Dr. Hugh A. R. Kuhn, Hammond, Ind., Allergy of the Ear.
Dr. Bret Ratner, New York, The Management of Asthma in Children.
Dr. Stanley W. Insley, Detroit, Evaluation of the Drugs Used in the Treatment of Asthma.
Dr. Leo H. Criep, Pittsburgh, Extrinsic and Intrinsic Allergy—Their Clinical Differences.

Special lectures will be delivered by Drs. Benjamin S. Kline, Cleveland, on "Observations on the Pathology of Allergy"; Milton B. Cohen, Cleveland, "The Dynamic Mechanism of the Allergic Reaction"; Carl A. Dragstedt, Chicago, "Histamine"; Norman C. Wetzel, Cleveland, "Nutritional Disturbances in the Allergic Child"; Louis J. Karnosh, Cleveland, "Psychosomatic Aspects of Allergy"; Roy W. Scott, Cleveland, "Cardiac Asthma and the Heart in Asthma," and Clarence A. Mills, Cincinnati, "The Influence of Climate on Disease with Special Reference to the Allergic Syndromes."

FOREIGN

Harben Lectures.—Jack C. Drummond, D.Sc., scientific adviser to the British Ministry of Food, delivered the Harben Lectures for 1942 at the Royal Institute of Public Health and Hygiene, London, October 26-28, on "Problems of Wartime Nutrition."

Personal.—Sir H. Harold Scott, London, retired on August 31 from the directorship of the British Bureau of Hygiene and Tropical Diseases, which he has held since 1935, *Science* reports. Dr. Charles Wilcocks, London, assistant director of the bureau, has become acting director.

Professor Lapicque Arrested. — The *British Medical Journal*, October 10, reported the recent arrest of Dr. Louis Lapicque, head of the department of physiology and the General Physiological Laboratory at the University of Sorbonne, Paris, and the suppression of the *Presse médicale*.

The Chadwick Lectures.—Sir Leonard E. Hill, formerly professor of physiology at the University College, London, recently delivered the first lecture in the thirtieth annual series of the Chadwick Public Lectures of the Royal Society of Tropical Medicine. His subject was "The Interrelation of Clothing and Shortage of Fuel in Matters of Health."

Foreign Letters

LONDON

(From Our Regular Correspondent)

Nov. 21, 1942.

State Control of Medical Practice

State control of the medical profession has greatly increased in recent years, as shown particularly by the national health insurance acts, the scope of which has been extended. The question of a free state medical service for all has arisen. It is argued that when a person is ill he should be entitled to all the medical service necessary, general and special, domiciliary and hospital, and that this should be easily obtainable. The present medical service, like all British institutions, is a thing which has simply grown up and been modified as the occasion demanded. It was not based on any fundamental plan or design. Hence even in the sphere of government control several independent agencies take part in medical care—the Ministry of Health, the Board of Education, the Home Office, the Ministry of Pensions, the Ministry of Labor and the General Post Office. There are more than a thousand voluntary hospitals, while the local authorities control between six and seven hundred which do exactly similar work without any coordination between the two groups. In general practice there is the same diversity. National health insurance provides for twenty-two million employed persons whose income is below $2,000 annually, while the rest of the people either pay privately or, if necessitous, obtain medical care through public assistance. There are also special services for maternity and child welfare under the control of the local authorities.

At the annual representative meeting of the British Medical Association, future medical practice was discussed on the basis of a report of the Medical Planning Commission. The president, Sir Beckwith Whitehouse, spoke of "the swing toward state medicine." While recognizing the necessity of a coordinating body and admitting the immense services which the Ministry of Health had contributed to the nation's health, he viewed with some apprehension the inroads in recent years on the influence of that traditional link of British medicine, the family doctor and his patient. The bond between the Ministry of Health and the various health services administered by local public health authorities was growing; communal services were increasing, and we might one day soon find ourselves members of a coordinated state health service. He was convinced that neither the people of this country nor the bulk of the medical profession desired to become the regimented units of a system of bureaucratic control. He believed that a system of state medical service would be detrimental to the national health and the personal interests of patient and doctor.

The question was debated whether provision of medical care by the government should be for the whole community or for a part only. It was argued that if further extension of national health insurance came about only 10 per cent of the community would remain outside and that to set up an enormous organization for them seemed unnecessary. An amendment for the inclusion of the whole community was rejected by the narrow majority of 94 to 92. But a motion for the establishment of a whole time salaried government service was rejected by the large majority of 177 to 20.

Sturdy individualism is a feature of the British character, and many view with horror the conversion of the medical profession into a branch of the civil service, to be controlled by doctrinaires outside it. Sir Ernest Graham Little (dermatologist and member of Parliament) is a prominent example. He holds that British institutions, developed by slow growth and accommodated to long experience, do much better work than any substitutes planned de novo by the hastily collected commissions now sitting. He regards the voluntary hospitals, as exemplified by our great medical schools, as a precious heritage whose absorption in a state scheme under state management would spell disaster both for the public and for the profession. He points out the great efficiency of the voluntary hospitals, which are free from any government control. They have been centers of medical research, as contrasted with the medical branches of the armed forces, where departures from routine are frowned on.

The Medical Schools After Three Years' War

The bombing of London led to the evacuation of the medical schools on a large scale to safer places. Air attacks on a small scale continue to be made on this country, but the bombing of London has ceased for over a year and the medical schools are returning. In this fourth winter of the war the preclinical subjects are being taught here again, instead of in the provinces, to which they were transferred. But the preclinical schools of the London Hospital and St. Bartholomew's remain at Cambridge and of St. Thomas's at Godalming, a short distance from London, where laboratories and classrooms have been constructed. The extent to which the work of the London schools has been disturbed by the war is illustrated by the case of the London Hospital. Apart from the preclinical school at Cambridge, the medical work is now organized at three centers: the hospital itself (416 beds), the annex at Brentwood (542 beds) and the hospital at Enfield (925 beds). When medical students qualify they are at once conscripted for the army unless they obtain hospital appointments, which exempts them for three months.

Postgraduate teaching in London continues at the British Postgraduate Medical School. Bedside tuition and lectures are favored rather than specific courses. In alternate weeks there are special courses in war medicine and surgery. A limited number of refugee graduates have been accepted to enable them to put in the hospital practice necessary for the taking of British qualifications.

The British Medical Students' Association

At a recent inaugural meeting of the British Medical Students' Association in London seventeen medical schools and hospitals out of twenty-six were represented. Most delegates were in favor of the present shortened medical curriculum, owing to the need for speeding up the supply of doctors for the fighting forces. Teaching should be maintained at the highest level, and to this end the following were recommended: 1. Planned reservation (against conscription) of teachers in all medical schools and greater use of women in teaching posts. 2. The fullest possible use of all available hospital material in the vicinity of each medical school. This must involve the use of municipal hospitals. 3. Immediate consultation between staff and students in each medical school to discuss administrative and teaching difficulties raised by the shortening of the medical course consequent on the war. 4. The setting up of "efficiency committees" in hospitals, covering lay and medical staffs and students. These committees should consider how to improve the organization of hospitals in view of the shortage of hospital staff and pressure of work due to war conditions. 5. The admission of women to all medical schools on equal terms with men. In view of the importance of intensifying the training of medical students, in no case should clinical students undertake any form of national service. The service required of preclinicals should bear immediate relation to their use in cases of emergency. Hence long periods of infantry training were condemned.

Another subject considered was student health. In Edinburgh a special ward is set aside for all students (not medical students alone) in which they receive free hospital care; a special students' insurance scheme has also been established. Students can register with one of five physicians on paying a fee of $2 per annum, for which they become entitled to free attendance.

New Steps to Combat Tuberculosis

Speaking at the opening of a sanatorium built at a cost of $800,000 by the Nottingham Corporation, the minister of health, Mr. Ernest Brown, described the new steps by the ministry to combat tuberculosis. Soon they would put into practice the principle that success depended on treatment in the early stages, if possible before any symptoms were noticed by the person attacked. They had ordered sets of miniature radiography apparatus for this purpose, which would be ready by the end of the year. Ideally every one ought to undergo a regular examination. The minister said that we had in England and Wales more than 27,000 beds for the treatment of tuberculosis. Those beds were served by 5,200 nurses and nursing auxiliaries and 4,800 do mestic workers. Some beds for tuberculosis had been released from the Emergency Hospital Scheme (established for the treatment of the civilian casualties of the war), but to bring them into use twelve hundred nurses and nine hundred more domestic workers were required.

BRAZIL

(From Our Regular Correspondent)

Oct. 22, 1942.

Malaria Discussed at Pan American Sanitary Conference

The eleventh Pan American Sanitary Conference was held in Rio de Janeiro from the 7th to the 18th of September. The present situation of malaria in the Western Hemisphere was presented by Dr. Arnoldo Gabaldon, delegate from Venezuela, and Dr. Mark F. Boyd, delegate from the United States, the former as president of the permanent committee on malaria of the Pan American Sanitary Bureau and the latter as president of the subcommittee on malaria surveys. Malaria, the report states, is already considered a major public health problem in the majority of the American republics. The disease is not present in Uruguay, according to the information of Dr. Schiaffino, director of the National Health Department, and is of a limited importance in Chile, where malaria prevails in a small area of the extreme north of the country. In the sixteen republics from which the committee was able to gather information, the malaria control work is a direct and exclusive function of the National Departments of Health in ten nations (Argentina, Bolivia, Costa Rica, Cuba, Dominican Republic, Guatemala, Haiti, Mexico, Paraguay and Peru), while in three (Brazil, Colombia and Ecuador) it is carried out by cooperation between the national and the state departments of health, and in two (Salvador and Venezuela) this cooperation involves also the counties. The place the malaria organization has in the general scheme of government varies considerably in the different American countries, but in the most frequent case (Argentina, Brazil, Costa Rica, Cuba, Dominican Republic, Guatemala, Haiti, Peru, Salvador and Venezuela) it is one of the main administrative divisions of the National Health Department. In two countries (Bolivia and Mexico) the malaria bureau is only a part of one of the main divisions of the department, while in two others the work is carried out by a special section of the division of sanitation, and in Paraguay it depends on the cooperation of the divisions of epidemiology, hygiene and rural sanitation. The report points out that several countries of the Western Hemisphere have already reached significant progress in relation to the development of a satisfactory malaria control organization. A table was presented showing the appropriations for the malaria control work in the last three years expressed in American dollars. For the year 1941, for instance, the appropriations vary from the minimum of $10,000 in the Dominican Republic to $100,600 in Cuba, $104,200 in Peru, $155,200 in Mexico, $305,700 in Argentina, $384,100 in Venezuela and $416,000 in Brazil. It is gratifying to observe that the malaria control work is being carried out with increasing emphasis, as is demonstrated by the rise in the total of the appropriations for the last three years: from $701,600 for 1939 to $1,711,400 for 1941.

The technical personnel, divided into malariologists, entomologists and sanitary engineers, is generally considered insufficient in number and needing a more complete specialization. The report stresses the necessity for physicians having more specialization in malariology, the entomologists more specialization in taxonomy and in the use of larvicides, and the engineers in the theory and practice of the minor works of malaria sanitation. In this respect the health departments of thirteen nations (Argentina, Brazil, Colombia, Costa Rica, Cuba, the Dominican Republic, Ecuador, Guatemala, Haiti, Mexico, Peru, Salvador and Venezuela) have informed the committee that they have one or more specialists classified as malariologists: seven of the nations have only one, five have from two to ten, and one nation (Brazil) has thirty-four. The specialists in entomology are much more abundant. All these thirteen republics have sanitary engineers in the malaria control organizations except Colombia, which reports that the work is done by engineers of other divisions of the health department.

The sixteen nations to which the report refers have carried out more or less complete studies about the anophelines of their areas. In only a few of the countries in the subtropical zone is the anopheline fauna sufficiently known. Another phase of this subject is the determination of the species responsible for the transmission of the disease. In some nations this will have to wait for the final solution of some intricate problems of taxonomy. In almost all the Caribbean Sea countries the importance of Anopheles albimanus is indisputable. Between this region and Argentina Anopheles pseudopunctipennis is definitely incriminated. The importance of this species is probably much greater than is indicated by this enumeration, but it may be obscured by certain yet unknown points of the racial composition of the species. All the available data indicate the complexity of the problem of vectors in the nations east of the Andes, and the nature of this problem is known only in part. At least in Argentina and in Brazil, for example, Anopheles albitarsis is still an unsolved question. Anopheles darlingi, perhaps the most dangerous vector indigenous to the Americas, represents a well recognized problem in Brazil, Venezuela and Guatemala, and later it will probably be inculpated in some other areas. Anopheles tarsimaculatus var. oswaldi has been considered to be another vector of some importance in Brazil, which had to face the problem of Anopheles gambiae, imported from Africa through air transportation and the eradication of which constituted a paramount sanitary achievement already reported in THE JOURNAL (Dec. 27, 1941, p. 2267). The report recognizes that the neighboring countries, and even the most distant nations in the Western Hemisphere, have contracted a debt to Brazil for this great achievement, which proved the technical ability and the perseverance of the health authorities of the nation.

Marriages

RAYMOND J. MCGANN, Mount Sterling, Ill., to Miss Mary Agnes Gray of St. Joseph, Mo., recently.

JOHN WOOTEN MEREDITH, Scottsville, Ky., to Miss Raechel Nadine Holland at Bardstown, June 14.

CLARENCE WILSON ORR to Miss Mary Elizabeth Holler, both of Spartanburg, S. C., June 14.

DAVID J. TSCHETTER, Canton, Ohio, to Miss Ursula Mary Burns of Chicago, September 21.

ARTHUR J. KATZBERG, Baltimore, to Miss Mae Wier at Washington, D. C., July 1.

WALTER LYON BLOOM, New York, to Miss Suzanne Ferst of Atlanta, Ga., recently.

Deaths

Sherman Grant Bonney, Denver; Harvard Medical School, Boston, 1889; member of the House of Delegates of the American Medical Association in 1902; member of the Colorado State Medical Society; at one time dean and professor of medicine at the Denver and Gross College of Medicine; professor of medicine emeritus and formerly professor of diseases of the chest at the University of Colorado School of Medicine; fellow of the American College of Physicians; member of the American Clinical and Climatological Association; past president of the Denver Clinical and Pathological Society; at one time a director of the National Association for the Study and Prevention of Tuberculosis; formerly on the staffs of St. Luke's and St. Joseph hospitals; author of "Pulmonary Tuberculosis and Its Complications," first edition published in 1908 and second edition in 1910; aged 78; died, November 19, of heart disease.

Harry Clyde Hoffman ✠ Connellsville, Pa.; University of the Pennsylvania Department of Medicine, Philadelphia, 1905; past president of the Fayette County Medical Society; at one time on the staff of the Somerset (Pa.) Community Hospital and superintendent of the Somerset County Home and Hospital, Somerset; member of the surgical staff of the Connellsville State Hospital from 1912 to 1937; a trustee of the Gettysburg College from 1920 to 1937; formerly a member of the Gettysburg Theological Seminary board; aged 65; died, November 11, in Barnesville, Ohio, of carcinoma of the pancreas.

Grace Niebuhr Kimball, Poughkeepsie, N. Y.; Woman's Medical College of the New York Infirmary for Women and Children, New York, 1892; member of the Medical Society of the State of New York; for many years a medical missionary in Turkey; past president of the Medical Woman's National Association; at one time assistant physician at Vassar College; formerly member of the city board of health; president of the board of trustees of the Samuel W. Bowne Memorial Hospital from 1911 to 1941; aged 87; died, November 18, of heart disease.

William Otis Faxon ✠ Stoughton, Mass.; Boston University School of Medicine, 1876; served in the Massachusetts House of Representatives in 1905-1906 and as state senator in 1907-1908; medical examiner of Norfolk County for more than forty years; chairman of the examining board during World War I; in 1939 received the honorary degree of doctor of science from Boston University; aged 89; died, November 12, in the Massachusetts General Hospital, Baker Memorial, Boston, of subdural hemorrhage.

Arthur J. Anderson ✠ Lawrence, Kan.; Hahnemann Medical College and Hospital, Chicago, 1887; past president of the Kansas State Board of Medical Registration and Examination; at one time associated with the Indian Service; for thirty-five years school physician of Lawrence; in 1936 was presented with a silver plaque by the Douglas County Medical Society in celebration of his completion of fifty years in the practice of medicine; was a past president of the society; aged 79; died, October 8.

Erastus Corning, Albany, N. Y.; Albany Medical College, 1907; member of the Medical Society of the State of New York; adjutant and later commanding officer of a unit of Base Hospital number 33 in France during World War I; was promoted to lieutenant colonel and went to Archangel, Russia, as surgeon in chief of the Russian expeditionary forces; aged 63; on the staffs of the Memorial Hospital and St. Peter's Hospital, where he died, November 11, of bronchopneumonia and diabetes mellitus.

Ralph Emerson Weible ✠ Fargo, N. D.; Rush Medical College, Chicago, 1901; member of the founders' group and specialist certified by the American Board of Surgery; past president of the Cass County Medical Society; fellow of the American College of Surgeons; one of the founders and president of the Dakota Clinic; recently a member of the medical advisory board of the Selective Service System; surgeon, St. John's Hospital; aged 63; died, November 8, in Minneapolis.

George Eyerman McLaughlin, Brooklyn; University of the City of New York Medical Department, New York, 1891; at one time member of the board of health of Jersey City; formerly on the staffs of the Christ Hospital (Jersey City) and the Bayonne (N. J.) Hospital; served as a U. S. Navy surgeon with the rank of lieutenant commander during World War I; aged 73; died, November 8, in the Long Island College Hospital of arteriosclerotic heart disease.

Lewis Leroy Bartlett, Dalhart, Texas; State University of Iowa College of Medicine, Iowa City, 1895; served the Dallam-Hartley-Sherman-Moore Counties Medical Society as president in 1930; health officer of Dallam County from 1918 to 1922; formerly member of the city council of Dalhart and the board of education; aged 81; died, September 24, of arteriosclerotic heart disease.

Charles Edward Roderick, Dayton, Ohio; Medico-Chirurgical College of Philadelphia, 1914; member of the West Virginia State Medical Association and of the American Society of Clinical Pathologists; pathologist on the staff of St. Elizabeth Hospital; aged 52; died, November 6, in the Stillwater Sanatorium of tuberculous meningitis, enteritis, portal cirrhosis and arteriosclerosis.

E. Wood Ruggles ✠ Rochester, N. Y.; College of Physicians and Surgeons, New York, 1888; an Affiliate Fellow of the American Medical Association; member of the American Dermatological Association and the American Urological Association; past president of the Monroe County Medical Society and of the Rochester Pathological Society; aged 81; died, November 7.

John Paullett Clark, Lynchburg, Va.; University of Virginia Department of Medicine, Charlottesville, 1896; member of the Medical Society of Virginia; for many years public school physician; on the visiting staff of the Lynchburg General, Virginia Baptist and the Memorial hospitals; aged 72; died, November 9, of carcinoma of the prostate.

Jesse Austin Spence, Mansfield, Ohio; Miami Medical College, Cincinnati, 1887; member of the Ohio State Medical Association; for many years medical examiner for the Pennsylvania Railroad; member of the library board; formerly member of the school board; aged 82; died, November 11, in the Mansfield General Hospital of heart disease.

John Sims Crutcher Sr. ✠ Athens, Ala.; University of Nashville (Tenn.) Medical Department, 1889; Vanderbilt University School of Medicine, Nashville, Tenn., 1889; formerly served as health officer of Limestone County; on the staff of the Limestone County Hospital; aged 77; died, November 6, in the Vanderbilt Hospital, Nashville.

James Keel Coddington ✠ Humboldt, Iowa; State University of Iowa College of Homeopathic Medicine, Iowa City, 1900; past president and secretary of the Humboldt County Medical Society; for many years county coroner; aged 70; died, November 4, in the Lutheran Hospital, Fort Dodge, of coronary thrombosis.

Louis M. Brown, St. Petersburg, Fla.; University of Pittsburgh School of Medicine, 1909; member of the Medical Society of the State of Pennsylvania; medical director of the Allegheny County Home and Hospital for the Insane, Woodville, Pa., from 1930 to 1937; aged 63; died, November 5, of cerebral thrombosis.

Harry H. Heylmun ✠ Long Beach, Calif.; Kansas City (Mo.) Medical College, 1897; specialist certified by the American Board of Radiology, Inc.; member of the Radiological Society of North America, Inc., and the American College of Radiology; aged 75; died, October 30, in the Seaside Hospital of aortic aneurysm.

Clifford Ray Hoy ✠ Syracuse, Ind.; Indiana University School of Medicine, Indianapolis, 1913; served overseas as a captain in the Evacuation Field Hospital number 9 both in France and in Germany during World War I; aged 54; died, November 7, in the Elkhart (Ind.) General Hospital of a subphrenic abscess.

John Daniel Fouts, Dayton, Ohio; Ohio-Miami Medical College, Cincinnati, 1910; member of the Ohio State Medical Association and the American Academy of Ophthalmology and Otolaryngology; aged 56; on the staff of the Miami Valley Hospital, where he died, November 10, of cerebral hemorrhage and hypertension.

Arthur Corliss Liston, Bellows Falls, Vt.; Baltimore Medical College, 1906; member of the Vermont State Medical Society; served during World War I; appointed roentgenologist at the Rockingham General Hospital in 1939; aged 58; died, November 10, of carcinomatosis and primary lesion in the bladder.

Joseph Livingston Fewsmith ✠ Newark, N. J.; Columbia University College of Physicians and Surgeons, New York, 1902; on the staffs of St. Michael's Hospital, Presbyterian Hospital and the Hospital of St. Barnabas and for Women and Children; aged 65; died, November 2, of coronary thrombosis.

Samuel Archie Joslyn ✠ Loveland, Colo.; Denver and Gross College of Medicine, Denver, 1904; past president of the Larimer County Medical Society; formerly on the staff of the Loveland Hospital and Clinic; chief of staff, Namaqua Hospital; aged 61; died, October 8, of coronary thrombosis.

Henry Osgood Anderson, Williamsport, Tenn.; University of Nashville Medical Department, 1907; member of the Tennessee State Medical Association; past president of the Maury County Medical Society; served during World War I; aged 62; died, November 16, in Nashville of heart disease.

Charles Martin Alt, Baltimore, Ohio; Starling Medical College, Columbus, Ohio, 1895; member of the Ohio State Medical Association; in 1940 received a plaque from the Fairfield County Medical Society for having practiced more than forty years; aged 73; died, October 21, in Lancaster.

Jesse G. Hilton, Mena, Ark.; American Medical College, St. Louis, 1905; member of the Arkansas Medical Society; secretary and past president of the Polk County Medical Society; aged 68; died, November 8, in a hospital at Hot Springs National Park of carcinoma of the pancreas.

Walter Clark Crombie, East Orange, N. J.; Albany (N. Y.) Medical College, 1879; member of the Medical Society of the State of New York; for many years a member of the board of education in Mechanicville, N. Y.; aged 87; died, November 24, of uremia and myocarditis.

William Roy Hedrick, Decatur, Ill.; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1910; member of the Illinois State Medical Society; for many years county physician; aged 56; died suddenly, November 17, of coronary thrombosis.

Benjamin Clayton Arnold ✠ Jackson, Tenn.; Vanderbilt University School of Medicine, Nashville, 1913; served as a captain in the medical corps of the U. S. Army during World War I; aged 53; died, November 13, in the Webb-Williamson Hospital of cerebral hemorrhage.

Ed N. Loy, Rensselaer, Ind.; Chicago Homeopathic Medical College, 1898; served as examining physician during World War I; health officer of Rensselaer; aged 70; died, November 14, of coronary occlusion, cardiovascular renal syndrome and transverse myelitis.

Charles Lansing Witbeck ✠ Cohoes, N. Y.; Albany Medical College, 1901; police and fire department surgeon; coroner's physician in 1909; at one time on the staff of the Cohoes Hospital; aged 67; died, November 4, in Maplewood, N. J., of cardiac insufficiency.

Arthur Wrigley ✠ Philadelphia; Medico-Chirurgical College of Philadelphia, 1901; at one time a member of the board of health of Philadelphia; for many years senior chief of the ear, nose and throat service of St. Joseph's Hospital; aged 65; died, November 4.

Robert French Mason, Washington, D. C.; University of Maryland School of Medicine, Baltimore, 1894; formerly gynecologist in charge of the dispensary service at the Garfield Hospital; aged 73; died, October 29, of coronary occlusion and coronary sclerosis.

Julius F. Mauermann, Monroe, Wis.; Northwestern University Medical School, Chicago, 1903; member of the State Medical Society of Wisconsin; aged 70; died, October 23, in Orangeville, Ill.

Merle Parrish ✠ Kansas City, Kan.; University of Kansas School of Medicine, Kansas City, 1928; aged 40; on the staff of the Providence Hospital, St. Margarets Hospital and the Bethany Hospital, where he died, November 8, of coronary occlusion.

William John Francis Martin, Philadelphia; Atlantic Medical College, Baltimore, 1908; member of the Medical Society of the State of Pennsylvania; for many years physician for the city parochial schools; aged 63; died, November 22.

Clifford H. Irion, Benton, La.; Medical Department of Tulane University of Louisiana, New Orleans, 1884; past president of the state board of health and the school board of Bossier Parish; aged 81; died, November 3, in a hospital at Shreveport.

David Henry Monahan, Bridgeport, Conn.; Dartmouth Medical School, Hanover, N. H., 1900; at one time member of the board of education and board of health; formerly on the staff of St. Vincent's Hospital; aged 80; died, November 7.

John Danner Thomson ✠ Atlanta, Ga.; Jefferson Medical College of Philadelphia, 1904; served as a captain in the medical corps of the U. S. Army during World War I; aged 62; died, November 10, of estivo-autumnal malaria and heart disease.

Smith Forrest McDonald ✠ Severy, Kan.; Kansas Medical College, Medical Department of Washburn College, Topeka, 1903; health officer of Greenwood County; aged 66; died, November 2, in a hospital at Wichita of heart disease.

John Rush Warren, Marietta, Ohio; Ohio State University College of Medicine, Columbus, 1917; served during World War I; aged 50; died suddenly, October 15, in the Swan Hospital, Cambridge, of acute dilatation of the heart.

David Este Weatherhead, Cincinnati; Medical College of Ohio, Cincinnati, 1898; also a druggist; at one time county physician; aged 67; died, November 4, in the Good Samaritan Hospital of carcinoma of the transverse colon.

John S. Wallner ✠ Chicago; Illinois Medical College, Chicago, 1904; aged 67; died, November 5, in the Columbus Hospital of acute cardiac dilatation, chronic myocarditis and coronary artery disease.

John W. Ringgold, Ashdown, Ark.; Arkansas Industrial University Medical Department, Little Rock, 1890; member of the Arkansas Medical Society; county health officer; aged 71; died, September 8.

William Vincent McCready, Providence, R. I.; University and Bellevue Hospital Medical College, New York, 1901; aged 68; died, November 2, in New York of chronic pulmonary tuberculosis.

Millard Lieser Smith, Dothan, Ala.; Tulane University of Louisiana School of Medicine, New Orleans, 1918; aged 49; died, November 8, in the Moody Hospital of chronic myocarditis.

James Jefferson Mallard, Royersford, Pa.; University of Pennsylvania School of Medicine, Philadelphia, 1922; aged 44; was found dead, November 11, of coronary thrombosis.

Charles Eliot Hirsh, Brooklyn; Long Island College Hospital, Brooklyn, 1892; aged 82; died, November 4, in the Methodist Hospital of carcinoma of the lung.

Henry S. Schuhmann, Brooklyn; University and Bellevue Hospital Medical College, New York, 1902; aged 66; died, October 15, of cerebral thrombosis.

Jacob Lichtenstein, New York; Friedrich-Wilhelms-Universität Medizinische Fakultät, Berlin, Prussia, 1894; aged 72; died recently of heart disease.

Richard Mayer, Oakland, Calif.; Friedrich-Wilhelms-Universität Medizinische Fakultät, Berlin, Prussia, Germany, 1929; aged 39; died, September 3.

Ella M. Bergtold, Bowmansville, N. Y.; University of Buffalo School of Medicine, 1918; aged 58; died, November 17, in Buffalo of hemiplegia.

Hermann Julius Schirmer, Guttenberg, Iowa; College of Physicians and Surgeons, New York, 1882; aged 85; died, October 16, of senility.

Wright Sylvester Mims, Ardmore, Tenn.; Memphis Hospital Medical College, 1910; aged 65; died, November 9, of acute myocarditis.

Thomas V. Hammond, Berlin, Md.; Jefferson Medical College of Philadelphia, 1882; aged 81; died, November 11, of paralysis agitans.

Jerome M. Glaze, Van Nuys, Calif.; Vanderbilt University School of Medicine, Nashville, Tenn., 1885; aged 77; died, September 18.

Stella Cox Venable, Geneseo, N. Y.; University of Buffalo School of Medicine, 1888; aged 84; died, November 5, of chronic endocarditis.

Charles A. Kelly, Clarksville, Tenn.; Meharry Medical College, Nashville, 1900; also a pharmacist; aged 75; died, October 12.

Conrad Joseph Becker ✠ Wilkes-Barre, Pa.; Medico-Chirurgical College of Philadelphia, 1906; aged 64; died, September 29.

Martin Kramer, Pella, Iowa; Missouri Medical College, St. Louis, 1880; aged 88; died, October 7, in Pleasantville of gangrene.

John Huecker, Waukon, Iowa; Denver College of Medicine, 1898; aged 72; died suddenly, November 10, of heart disease.

Edward C. Zoll, Elmwood, Ill.; Keokuk (Iowa) Medical College, 1898; aged 80; died, November 13, of cerebral thrombosis.

Chastine G. Williams, Oak Grove, Va.; University College of Medicine, Richmond, 1896; aged 70; died, October 3.

John Daniel Estell, Cincinnati; Eclectic Medical Institute, Cincinnati, 1902; aged 66; died recently of chronic nephritis.

Ulysses S. G. Beam, Lima, Ohio; Louisville, (Ky.) National Medical College, 1895; aged 75; died, October 11.

Solomon E. Greenwood, Fletcher, N. C.; Tennessee Medical College, Knoxville, 1902; aged 64; died, October 28.

James Isaac Bradshaw, Erwin, Tenn.; Tennessee Medical College, Knoxville, 1901; aged 74; died, October 30.

W. H. McWhorter, Burns, Miss. (licensed in Mississippi in 1897); aged 84; died, October 14.

Correspondence

CONSERVATION OF PAPER

To the Editor:—At the hospital staff meeting we were informed that, owing to pressure from government boards controlling the use of raw materials, certain form sheets used in our case histories will no longer be furnished. For example, "progress" and "follow-up" notes will, for the duration, go on the same sheet. This may not be a vital change, but the hospital is making a definite sacrifice. The histories will be less easily digested and abstracted when somebody wishes to tabulate a number of them. Yet if this trifling change can be of the slightest use in the war effort, it has our wholehearted approval.

Here is the rub. After that meeting, I visited my mail box in the hospital and abstracted sixteen pieces of mail that made a mass of paper weighing 1 pound 9 ounces. Many folders consisted of numerous pages, some printed in brilliant colors. Many, many hours of work by able bodied printers had gone into the preparation of that material. And that at a time when the nation is crying for manpower for the war effort. All that printed matter told wondrous tales of this and that certain to transform the practice of medicine into a dream of joy.

We are told that paper is scarce, pigments for colored inks are scarce, the working time of skilled men is scarce. Why then is it permitted to waste these values on the masses of junk that descend into our mail boxes daily? All that stuff I mentioned promptly went into the scrap basket. I know I am tweeking the tail of the Sacred Cow of advertising; for that profanity I will lose caste with the pundits. I would sooner lose caste than lose this war. Cannot we physicians do something to discourage the horrible waste represented by the masses of printed matter that flood us? Do not patronize the wastrels.

Joseph T. Smith, M.D., Boston.

FOR A BETTER MEANS OF ESTIMATING THE NEED FOR RESTORATION OF THE BLOOD VOLUME

To the Editor:—The benefit of infusion of serum in cases of shock seems now to be established beyond all doubt. Particularly after severe burns, if the loss of serum externally is not to induce a development of shock, restoration of the blood volume is imperative. The question then is How can the surgeon best judge when, how much and how rapidly serum should be administered?

It seems now to be generally accepted that failure of the circulation, or shock from decrease of blood volume, is not due to depression of the vasomotor control of the arteries but that the fall of arterial pressure is secondary to the decrease of the venous return: the heart can pump into the arteries no more than the decreased volume that it receives from the veins.

It would therefore be more logical and afford an earlier and more quantitative index of a failing circulation to measure directly the volume, or decrease of volume, of the venous return than to rely, as at present, almost wholly on measurements of arterial pressure alone. The reason that the venous return is not now measured seems to be that surgeons are generally unaware that there is any method for this purpose.

Yet there is such a method, and it is very simple. It consists in the measurement of the column of blood in the veins of the arm when the patient is tipped up momentarily into an extreme head down and feet up position—a slope of at least 1:4. This is a different matter from the practically worthless figures for venous pressure when the body is horizontal. Measurements then, as between health and shock, can differ by only a few millimeters of blood. But when the body is inverted, the venous column varies by many centimeters: a high column indicating a full volume of venous return, and a low column affording a direct indication of the need for infusion of serum or blood (Henderson, Yandell, and Haggard, H. W.: *J. Pharmacol. & Exper. Therap.* **11**:189 [April] 1918. Henderson, Yandell: *Science* **95**:539 [May 29] 1942).

Although the head down and feet up position is not so much of an aid to the circulation as surgeons generally believe, it can be a great aid in diagnosis. For when all the blood returning from the tissues is, by means of inversion of the body, poured into the uncapacious and relatively undilatable veins of the head and neck, the pressure of blood in those vessels is an index of the volume of the venous return. To measure that pressure, one of the patient's arms is held vertically, or lifted gradually, and the height of the column of blood in the veins is measured from some fixed point of reference such as the symphysis of the clavicles. Estimated in this way the volume of the venous return has been found to be greatly decreased after some major surgical operations and also in cases of acute illness. As recovery develops the venous column rises again; as vitality fails, the venous column sinks progressively lower until it reaches zero as the tonus of the body's musculature disappears at death.

Such measurements of the venous return give indications of decrease of the active blood volume and the need for infusion of serum or blood much sooner and more significantly than the now conventional measurements of arterial pressure alone.

Yandell Henderson, Ph.D., M.D.(hon.),
New Haven, Conn.

THE PEPPER HEARINGS ON MEDICAL MANPOWER

To the Editor:—It is difficult to understand how such a garbled and unedited stenographic report of my testimony before the Senate Committee could have been published in The Journal of the American Medical Association.

In the editorial it was stated that I would be in favor of a totalitarian government if it meant that tuberculosis could be eradicated. Actually I made no mention whatever about our government. Even to suggest that I thought that this wonderful government of ours, for which our boys are fighting, and dying, should be changed is absurd and beyond comprehension. In my testimony I was speaking of public health only and stated that I wanted it taken care of and that "whether you call this totalitarianism or industrial medicine or group medicine or American Medical Association, I don't care." In another instance I stated that public health is bigger than individuals and that we must adjust ourselves to that premise. I stated also that our efforts to control it should be continued. Whether this was done in a democratic or totalitarian way made no difference as long as it was done. This could not possibly be construed honestly as meaning that I am for a totalitarian form of government.

Public health vitally interests two widely separated groups—the one the public which is afflicted with disease, and the other the medical profession which is supposed to care for it. If the latter proves ineffectual in any community or under any circumstances, the public has a right to demand—and get—the proper care. Therefore, a proper allocation of doctors is obviously essential. These are truths which are not debatable.

E. J. O'Brien, M.D., Detroit.

Council on Medical Education and Hospitals

CONTINUATION COURSES FOR PRACTICING PHYSICIANS

In accordance with the plan of the Council on Medical Education and Hospitals, advance information concerning continuation courses for practicing physicians available in the various centers is published quarterly. The following list consists of courses beginning during the period Jan. 1, 1943-March 31, 1943. It is hoped that this material will be useful to physicians seeking opportunities for postgraduate work. Physicians called on to assume new responsibilities because of the war and physicians who are returning to practice may find here listed courses which will be of help to them. Since many of the classes are necessarily limited, those who contemplate enrolling in any of these courses are urged to communicate as early as possible with the proper executive officer.

H. G. WEISKOTTEN, M.D.,
Secretary, Council on Medical
Education and Hospitals.

Continuation Courses for Practicing Physicians, January 1-March 31, 1943

Institution	Schedule of Course	Title of Course	Number of Students Accepted	Registration Fee and/or Tuition
ALLERGY—See also Dermatology & Syphilology				
Southwest Allergy Forum, Shreveport, La. Write to: Dr. Alan Cazort, Sec'y, 702 Donaghey Bldg., Little Rock, Ark.	March 12-13	Allergy	....	.....
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	March 29-April 16 [28]	General course	4-8	$150 [24]
University of Pennsylvania, Graduate School of Medicine, 237 Medical Laboratories, Philadelphia, Pa. Write to: Dr. R. C. Buerki, Dean, The Medico-Chirurgical College	Arranged. 4 weeks, about 40 hours	Allergy	Individuals [2]	$150
Drs. Vaughn and Graham, 201 West Franklin St., Richmond, Va. Write to: Dr. Warren T. Vaughn	1 year course. Every 6 months	Training in allergy	Limited	.....
ANATOMY				
New York Medical College, Flower and Fifth Avenue Hospitals, 5th Avenue at 105th St., New York, N. Y. Write to: Dr. J. A. W. Hetrick, Dean	Arranged. 60 hours	Applied anatomy of the urogenital system	....	$150 [17]
	Arranged. 60 hours	Applied anatomy of ear, nose and throat	....	$150 [17]
	Arranged. 100 hours	Surgical anatomy	....	$250
	Arranged. 90 hours	Applied anatomy of pelvis and abdomen	....	$250
ANESTHESIOLOGY				
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Assistant Dean	Monthly. Days and hours arranged	Clinical anesthesia	....	$30
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y.	Continuously. 2 weeks	Anesthesia	1 [2]	$50 [24]
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham	Arranged. 12 sessions	Regional anesthesia	2-4 [2]	$75 [24]
	Jan. 2. Full time for 3 months	Regional and spinal anesthesia	4	$300 [24]
New York University College of Medicine, 477 First Avenue, New York, N. Y. Write to: Dr. John H. Mulholland	Arranged. Part time for 3 weeks	Inhalation anesthesia	5	$150
	Arranged. Part time for 3 weeks	Regional anesthesia	....	$200
BACTERIOLOGY—See also Ophthalmology; Otolaryngology; Pathology				
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y.	Jan. 28, 29. 1 month, part time	Clinical bacteriology and serology	3-8	$50 [24]
BIOCHEMISTRY				
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Assistant Dean	Arranged	Research in biological chemistry	....	Arranged [14]
BRONCHOSCOPY—See Otolaryngology				
CANCER				
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman	On request	Cancer	Minimum: 4	Arranged [14]
United States Public Health Service: National Cancer Institute. At approved institutions. Write to: Surgeon General, Washington, D. C.	Arranged. Full time	Diagnosis and treatment	Individuals	Varies [25,38]
CARDIOLOGY				
Michael Reese Hospital, 29th Street and Ellis Avenue, Chicago, Ill. Write to: Dr. Louis N. Katz, Director of Cardiovascular Research	Feb. 17-May 5. 12 weeks, part time	Electrocardiographic interpretation	Limited [26]	$25
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman	Jan. 25-27. Full time	Advanced electrocardiography	....	$20 [14]
Columbia University, Faculty of Medicine, at the Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Feb. 8-12 [28]	Cardiology	Minimum: 4	$35 [24]
	March 22-26, [28,29] Full time	Electrocardiography	Minimum: 4	$50 [24]
Columbia University, Faculty of Medicine, 530 West 168th Street, New York, N. Y., at Mount Sinai Hospital. Write to: Dean	Feb. 1-March 26, [28,29] Part time	Clinical aspects of heart diseases in adults	6-12	$50
New York Medical College, Flower and 5th Avenue Hospitals, 5th Avenue at 105th Street, New York, N. Y. Write to: Dr. J. A. W. Hetrick, Dean	Arranged. 16 semi-weekly sessions	Cardiology and electrocardiography	....	$100
New York State Department of Health, at Albany Medical College, 47 New Scotland Avenue, Albany, N. Y. Write to: Extension Course Office, Albany Medical College	Arranged. 3 months	Rheumatic cardiac disease	Limited [1]	None [28]
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia, Pa. Write to: Dr. R. C. Buerki, Dean, The Medico-Chirurgical College	Weekly. 5 days, about 30 hours	Electrocardiology and cardiac roentgenology	Individuals [2]	$60
CYSTOSCOPY—See Obstetrics and Gynecology; Urology				
DERMATOLOGY & SYPHILOLOGY—See also Obstetrics and Gynecology; Venereal Disease Control				
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Assistant Dean	Arranged. Part time for 2 months	Clinical mycology	6	$50
	Monthly. 1 month part time	Dermatology	....	$40
	Arranged. Full time	Dermatology: skin ward work.	Limited [3]	Arranged
	Jan. 1 year, full time	Dermatology and syphilology..	Limited [3,13]	$300

References will be found on p. 1421

Continuation Courses for Practicing Physicians, January 1-March 31, 1943—Continued

Institution	Schedule of Course	Title of Course	Number of Students Accepted	Registration Fee and/or Tuition
DERMATOLOGY & SYPHILOLOGY—See also Obstetrics and Gynecology; Venereal Disease Control—Continued				
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman, Postgraduate Division	Jan. 18-23. Full time	Diagnosis and therapy of the more common diseases of the skin (dermatology B)	Minimum: 6	$25 [14]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Arranged. 6 weeks or 3 months, part time	Diagnosis and treatment of syphilis	6	$25, $40 [24]
	Arranged. 6 weeks or 3 months, part time	Clinical dermatology and syphilology	20	$40, $75 [24]
	Arranged. 6 weeks or 3 months, part time	Practical instruction in dermatologic allergy and immunology	3 [2]	$40, $75 [24]
	Arranged. 6 weeks or 3 months, part time	Practical instruction in diagnosis and management of syphilis	3 per section	$40, $75 [24]
	Arranged. 6 weeks or 3 months, part time	Practical instruction in minor dermatologic surgery	2 [2]	$40, $75 [24]
	Arranged. 6 weeks or 3 months, part time	Practical instruction in mycology and animal parasitology as related to diseases of the skin	3 [2]	$40, $75 [24]
	Arranged. 3 months, 6 months or 1 year, part time	Practical instruction in the pathologic histology of diseases of the skin	12 [2]	$75, $125, $175 [24]
	Arranged. 6 weeks or 3 months, part time	Practical instruction in physical therapy as applied to diseases of the skin	3	$40, $75 [24]
United States Public Health Service, Dermatoses Investigations Section. Write to: Dr. Edward A. Oliver, 55 East Washington Street, Chicago, Ill.	Jan. 11-23. Full time	Occupational dermatoses	1st week, unlimited; 2nd week, maximum, 24	None
DIETETICS				
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman	On request	Dietetics	Minimum: 4	Arranged [14]
ELECTROCARDIOGRAPHY—See Cardiology				
ENDOCRINOLOGY—See Medicine				
ENDOSCOPY—See Obstetrics and Gynecology; Ophthalmology; Otolaryngology; Surgery; Urology				
EPIDEMIOLOGY—See Military Medicine; Tropical Medicine; Public Health				
FORENSIC MEDICINE				
New York University College of Medicine, 477 First Avenue, New York, N. Y. Write to: Dr. John H. Mulholland, Ass't Dean	Arranged. 1-7 months, part time	Forensic medicine	....	$25-$100
GASTROENTEROLOGY—See also Proctology				
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman	Feb. 8-13. Full time	Modern methods of examination of the gastrointestinal tract	....	$25 [14]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Jan. 4-8 [28]	Gastroenterology	4	$75
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at Presbyterian Hospital. Write to: Dean	Arranged. 2 months, part time	Gastroscopy	1 [2]	$200
New York Medical College, Flower and 5th Avenue Hospitals, 5th Avenue at 105th Street, New York, N. Y. Write to: Dr. J. A. W. Hetrick, Dean	Arranged. 10 sessions	Gastroscopy	....	$100 [18]
	Arranged. 5 sessions	Peritoneoscopy	....	$50 [18]
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham	Jan. 2 [29]	Clinical gastroenterology	10	$50 [24]
Hahnemann Medical College and Hospital, 230 North Broad Street, Philadelphia, Pa. Write to: Dr. William A. Pearson	Monthly. 1 month, full time	Gastroscopy	2	$100
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia, Pa. Write to: Dr. R. C. Buerki, Dean, The Medico-Chirurgical College	Arranged. 16 weeks, part time	Clinical course	Individuals [2]	$400
GASTROSCOPY—See Gastroenterology; Otolaryngology				
GYNECOLOGY—See Obstetrics and Gynecology				
HEMATOLOGY				
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at Mount Sinai Hospital. Write to: Dean	Feb. 1-March 25. [29] Part time	Clinical advanced course	Minimum: 12	$50
New York Medical College, Flower and 5th Avenue Hospitals, 5th Avenue at 105th Street, New York, N. Y. Write to: Dr. J. A. W. Hetrick, Dean	Arranged. 8 weeks, part time	Physical diagnosis and hematology	....	$100
INDUSTRIAL HEALTH				
The Philadelphia Ct. Medical Society, 301 South 21st Street, Philadelphia, Pa. Write to: Dr. Sarah I. Morris, Secretary	Jan. 5-Feb. 27. Part time	Industrial medicine and hygiene	....	.....
INFANTILE PARALYSIS				
University of Minnesota Medical School, Minneapolis, Minn. Write to: Dr. Harold S. Diehl, Dean	Arranged. [29] 6 days, full time	Kenny treatment of acute poliomyelitis	25 [24]	$25
LARYNGOLOGY—See Otolaryngology				
MEDICINE				
American College of Physicians, 4200 Pine Street, Philadelphia, Pa., at the Mayo Clinic. Write to: E. R. Loveland	Feb. Two weeks, full time	Course in general medicine or one of its specialties	Limited [10]	.....
American College of Physicians, 4200 Pine Street, Philadelphia, Pa., at the University of Minnesota Medical School. Write to: E. R. Loveland	Feb. Two weeks, full time	Internal medicine	Limited [10]	.....
Florida Medical Association, Inc. Write to: Dr. T. Z. Cason, Chairman, Medical Postgraduate Course, 2033 Riverside Avenue, Jacksonville, Florida	Arranged. 2 weeks or more, full time	General medicine	10	$5
New Orleans Graduate Medical Assembly, 1430 Tulane Avenue, Room 105, New Orleans, La. Write to: Dr. J. S. D'Antoni	March. Four days, full time	General course	....	$10
Maine Medical Association, 142 High Street, Portland, Maine. Write to: Dr. Frederic R. Carter, Chairman	Arranged. Part time	Home study course	Limited [7]	None

References will be found on p. 1421

Continuation Courses for Practicing Physicians, January 1-March 31, 1943—Continued

Institution	Schedule of Course	Title of Course	Number of Students Accepted	Registration Fee and/or Tuition
MEDICINE—Continued				
University of Maryland School of Medicine, Lombard and Green Streets, Baltimore, Md. Write to: Dr. Robt. U. Patterson; Dean	Arranged	Subject optional	Individuals	Arranged
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean	Continuously. Part time	Diabetes	....	None
	Feb. 1. 1 year, full time	Internal medicine	4-6 [3] 32	$300 [33]
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman	Jan. 18-23. Full time	Diabetes	....	$25 [14]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	March 1-5.[28,29] Full time	Arthritis and allied rheumatic disorders	Minimum: 4	$35 [24]
	Jan. 11-15	Industrial medicine	....	$35
	Feb. 15-19.[28,29] Five days, full time	Peripheral vascular diseases	Minimum: 4	$35 [24]
	Jan. 18-22.[28] Full time	Recent developments in diagnostic procedures	4-10	$35 [24]
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at Mount Sinai Hospital. Write to: Dean	Feb. 1-March 26.[28,29] Part time	General bedside therapy	10	$25
New York Medical College, Flower and 5th Avenue Hospitals, 5th Avenue at 105th Street, New York, N. Y. Write to: Dr. J. A. W. Hetrick, Dean	Arranged. 5 weeks, part time	Endocrine and metabolic disturbances, including diabetes mellitus	....	$100
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham	Arranged. 6 weeks or 3 months, full time	Course for general practitioners	....	$100 $150 [24]
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia, Pa. Write to: Dr. R. C. Buerki, Dean, The Medico-Chirurgical College	Arranged. 2-4 weeks, 75 hours	Diabetes mellitus	Individuals [2]	$150
MILITARY MEDICINE				
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	To be announced. 2 weeks, full time	Military medicine and surgery.	Limited [9]	.....
Navy Department, Washington, D. C. Write to: Bureau of Medicine and Surgery	6 times a year. 6 weeks, full time	Aviation medicine (aviation medical examiner)	Limited [8]	None
	Every five months. 5 months, full time	Aviation medicine (flight surgeon)	Limited [8]	None
	6 times a year. 8 weeks, full time	Basic instruction	Limited [8]	None
	Twice a year. 6 months, full time	Deep diving	4-12 [8]	None
	Twice a year. 6 months, full time	Epidemiology	8-20 [8]	None
	Monthly. 170 hours	Basic course for officers	500 [8]	None
War Department, Washington, D. C. Write to: Training Division, Office of the Surgeon General	Monthly. 1 month, full time	Exemplary course	150 [8]	None
	Arranged. 1 month, 145 hours	Maxillo-facial and plastic surgery	12 [8]	None
	Arranged. 1-3 months.	Officer pool, 14 general hospitals	700	None
	Undetermined	Officer pool, Gulf Coast Air Corps Training Center	200 [8]	None
	Indefinite	Officer pool, medical field service school	150 [8]	None
	Arranged. 1-3 months	Officer pool, medical replacement training centers	200 [8]	None
	Undetermined	Officer pool, medical supply depots and medical sections, general depots	50 [8]	None
	Arranged. 2 weeks, full time	Photoroentgenology	20 [8]	None
	Monthly. 170 hours	Special course for division officers	100 [8]	None
	Continuously	Specialized surgical team training	Limited [8]	None
NEUROLOGY—See Psychiatry and Neurology				
OBSTETRICS & GYNECOLOGY—See also Pathology				
Florida Medical Association, Inc. Write to: Dr. T. Z. Cason, Chairman, Medical Postgraduate Course, 2033 Riverside Avenue, Jacksonville, Fla.	Continuously. 2 weeks or more, full time	Gynecology	5	$5
	Continuously. 2 weeks or more, full time	Obstetrics	5	$5
Chicago Maternity Center, 1336 South Newberry Avenue, Chicago, Ill. Write to: Dr. Beatrice L. Tucker, Medical Director	Jan. 4 months	Practical obstetrics	....	$10
University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Ill. Write to: Mr. George Moon, Assistant to the Dean	Arranged. 2 weeks, full time	Obstetrics and pediatrics	Limited	None
Indiana University Medical Center, 1040-1232 West Michigan Street, Indianapolis, Ind. Write to: Dr. C. J. Clark, Chairman, Department of Postgraduate Instruction	Arranged. 2 weeks, full time	Obstetrics	10	$10 [22]
Louisiana State Board of Health. Write to: Director of Maternal and Child Health Service, 213 Civil Courts Bldg., New Orleans, La.	Dec. 28, 1942-Jan. 9, 1943	Refresher course in obstetrics	Limited	None
Maine Medical Association, 142 High Street, Portland, Maine. Write to: Dr. Frederick R. Carter, Chairman, Committee on Graduate Education	Arranged	Home study course	Limited [7]	None
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	Monthly. 1 month or more, full time	Clinical obstetrics	8 [4]	$125
	Monthly. 10 exercises	Gonorrhea in women	3	$20

References will be found on p. 1421

Continuation Courses for Practicing Physicians, January 1-March 31, 1943—Continued

Institution	Schedule of Course	Title of Course	Number of Students Accepted	Registration Fee and/or Tuition
OBSTETRICS & GYNECOLOGY—See also Pathology—Continued				
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Arranged. 5 weeks, part time	Cystoscopy and endoscopy.....	6	$75 [24]
	Arranged. 4 or 5 weeks, part time	Diagnosis and office treatment.	6	$40, $60 [24]
	Arranged. 8 weeks, part time	Gynecologic endocrinology	4	$100 [24]
	Arranged. 4 weeks or longer, part time	Gynecologic pathology	....	Arranged
	Jan. 4-April 1.[29] 1, 2 or 3 months	Seminar in gynecology.....	4-6	$125, $225, $300 [24]
	Arranged. 4 weeks, part time	Surgical anatomy as applied to operative gynecology (cadaver)	2-3 [2]	$200 [24]
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at Mount Sinai Hospital. Write to: Dean	March 15-May 8.[28] Full time	Clinical course in gynecology together with a survey of gynecologic pathology	6-12	$75
	Jan. 4-29. Part time	Gynecologic endocrinology	....	$50
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at Margaret Hague Maternity Hospital. Write to: Dean	Monthly. 3 months	Internship training	....	$350
	Monthly. 1 month	Observation course in obstetrics	....	$100
North Carolina State Board of Health, Raleigh, N. C., at Duke University School of Medicine. Write to: Dr. G. M. Cooper, Director, Maternal and Child Health Service	Weekly. 5 days, full time	Obstetrics and pediatrics.....	4-6 [5]	None [25]
OPHTHALMOLOGY—See also otolaryngology; radiology				
George Washington University, School of Medicine, 927 Seventeenth Street, N.W., Washington, D. C. Write to: Miss Louisa Wells, Secretary	Feb. 15-20. Full time	Ocular surgery pathology and orthoptics	30	$100
University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Ill. Write to: Mr. George Moon, Ass't to the Dean	Jan. 1.[29] 9 months, part time	Ophthalmology	Limited [1]	$150
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman, Postgraduate Division	Monthly. 1 month, part time	External eye diseases.....	Limited	$50 [14]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Feb. 8-13.[28,29] Full time	Advanced course in anomalies of the ocular muscles	8-12 [2]	$50 [24]
	Arranged. 15 sessions [30]	Embryology, histology and pathology of the eye	Limited [2]	$75 [24]
	Feb. 1-6.[28,29] Full time	Motor anomalies of the eye....	10-25 [2]	$60 [24]
	Feb. 15-20.[28,29] Part time	Slit lamp diagnosis	4-8 [2]	$35 [24]
	Feb. 15-19.[28,29] Part time	Surgical anatomy as applied to operative surgery of the eye	4-8 [2]	$60 [24]
New York Eye and Ear Infirmary, 218 Second Avenue, New York, N. Y. Write to: Mabel R. Stewart, Registrar	Monthly.[28] 1 month, part time	Anomalies of the ocular muscles	8 [1]	$40 [16]
	Monthly.[28] 1 month, part time	Bacteriology of the eye.....	4 [1]	$40 [16]
	Monthly.[28] 1 month, part time	External diseases of the eye...	6 [1]	$40 [16]
	March [28]	Intensive refresher course in ophthalmology and otology	Limited [2]	.....
	Monthly.[28] 1 month, part time	Ocular therapy	6 [1]	$40 [16]
	Monthly.[28] 1 month, or more, part time	Operative surgery of the eye....	4 [2]	$75 [16]
	Jan.[28,29] 6 months, full time	Ophthalmology and otology...	Limited [1]	$900
	Monthly.[28] 1 month, part time	Ophthalmoscopy	4 [1]	$40 [16]
	Monthly.[28] 1 month, part time	Perimetry	6 [1]	$40 [16]
	Monthly.[28] 3 months, part time	Physiological optics	8 [1]	$75 [16]
	Monthly.[28] 3 months, part time	Refraction	8 [1]	$100 [16]
	Monthly.[28] 1 month, part time	Slit lamp course	6 [1]	$50 [16]
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham, Executive Officer	Jan.[29] 6 weeks, part time	Clinical eye course	10	$50 [24]
	Jan.[29] 3 months, part time	Operative course (cadaver)....	10	$275 [24]
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia, Pa. Write to: Dr. R. C. Buerki, Dean, The Medico-Chirurgical College	Arranged. 8 weeks, part time	Ocular refraction	Individuals [2]	$270
	Arranged. 8 weeks, part time	Ophthalmic histology and pathology	Individuals [2]	$200
	Arranged. 2 weeks, part time	Ophthalmic operations (cadaver)	Individuals [2]	$270
ORTHOPEDICS—See also Surgery				
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman, Postgraduate Division	March 1-6. Full time	Diseases of the bone and joints	....	$25 [14]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	March 22-27.[28,29] Full time	Orthopedics in general practice	4-20	$35 [24]
	Jan. 18-29.[28] Full time	Seminar in orthopedic surgery	5-20 [2]	$75 [24]
OTOLARYNGOLOGY				
Research Study Club of Los Angeles. Write to: Mr. Harry C. Webb, 2569 West Washington, Blvd., Los Angeles, California	Jan. 29-Feb. 2.[29] Full time	Applied anatomy and surgery of the head and neck (cadaver)	40	$50 [22]
	Jan. 18-29.[29] Full time	Postgraduate clinical course in ophthalmology and otolaryngology	....	$50 [21]
University of Illinois College of Medicine, 1853 West Polk Street, Chicago, Ill. Write to: Mr. George Moon, Ass't to the Dean	Jan.[29] 9 months, full time	Otolaryngology	Limited [6]	$300

References will be found on p. 1421

Continuation Courses for Practicing Physicians, January 1-March 31, 1943—Continued

Institution	Schedule of Course	Title of Course	Number of Students Accepted	Registration Fee and/or Tuition
OTOLARYNGOLOGY—Continued				
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	March-April.[29] 1 month, full time	Anatomy and operative surgery of the temporal bone	Minimum: 6 [3,4]	$150
	Feb. 15-March 27.[29] Full time	Anatomy of the nose and throat	Limited [3,4]	$250
	Arranged. 2 weeks, full time	Bronchoscopy and esophagoscopy	Limited [3]	$150
	Monthly. 1 month, full time	Clinical otology	2 [3]	$50
	Arranged. 2 weeks, full time	Physiology of the cochlea and vestibular apparatus	2	$50
	Arranged	Technic of submucous resection of the nasal septum	Limited	$75 for 5 exercises
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman, Postgraduate Division	Monthly. Part time	Otolaryngology	....	$30, $50 [14]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Arranged. 4 weeks or longer, part time	Diagnostic procedures in otolaryngology	6	$30 [24]
	Arranged	Dissection of the head and neck	Minimum: 2 [3]	Arranged [24]
	Arranged. 15 sessions [30]	Embryology, histology and pathology of the ear, nose and throat	Limited [2]	$75 [24]
	Arranged	Surgical anatomy as applied to otology (cadaver)	2-6 [2]	Arranged [24]
	Arranged	Surgical anatomy as applied to rhinology and laryngology (cadaver)	2-6 [2]	Arranged [24]
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at Presbyterian Hospital. Write to: Dean	Arranged, Oct.-April. 3 weeks	Instruments and technic of bronchoscopy	Limited [2]	$250
New York Eye and Ear Infirmary, 218 Second Avenue, New York, N. Y. Write to: Mabel R. Stewart, Registrar	Monthly.[28] 4 weeks, part time	Anatomy of the ear	4 [1]	$45 [16]
	Monthly.[28] 1 month or more, part time	Bacteriology of the ear	4 [1]	$40 [16]
	Monthly, Oct.-May.[28] 2-6 weeks. Full or part time	Broncho-esophagology	4 [1]	$250 [16]
	Monthly.[28] 1 month, part time	Clinical otology	4 [1]	$40 [16]
	Monthly.[28] 1 month, part time	Operative surgery of the ear and nasal accessory sinuses	4 [1]	$110 [16]
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham, Executive Officer	Jan.[29] 6 weeks, part time	Clinical ear, nose and throat course	10	$75 [24]
	Jan.[29] 6 weeks, full time	Clinical eye, ear, nose and throat course	10	$100 [24]
	Jan.[29] 3 months, full time	Combined eye, ear, nose and throat course	10	$600 [24]
Temple University School of Medicine, 3400 North Broad Street, Philadelphia, Pa. Write to: Prof. Chevalier L. Jackson, Director	Jan. 25-Feb. 6. Full time	Broncho-esophagology and gastroscopy	....	$250 [39]
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia, Pa. Write to: Dr. R. C. Buerki, Dean, The Medico-Chirurgical College	Arranged. 2 weeks, full time	Broncho-esophagology, gastroscopy and laryngeal surgery	Individuals [2]	$250
	Arranged. 2 weeks, part time	Otologic operations (cadaver)	Individuals [2]	$250
	Arranged. 10 days, part time	Rhinolaryngologic operations (cadaver)	Individuals [2]	$150
PATHOLOGY—See also Obstetrics and Gynecology; Ophthalmology; Otolaryngology; Physiology				
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	Monthly. Hours arranged	Pathology [12]	4	$40
	Monthly. 1 month, full time	Pathology of obstetrics and gynecology	2 [3]	$125
	Arranged	Research in pathology	....	Arranged [14,18]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	March.[28,29] 4 weeks, part time	Pathology of the blood and blood forming organs	3-6 [2]	$75 [24]
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at Mount Sinai Hospital. Write to: Dean	Feb. 2-April 13.[28] Part time	General and special pathology.	Minimum: 6	$45
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham, Executive Officer	Arranged	Pathology and bacteriology (practical laboratory instruction)	....	Arranged [24]
PEDIATRICS—See also obstetrics and gynecology				
Florida Medical Association, Inc. Write to: Dr. T. Z. Cason, Chairman, Medical Postgraduate Course, 2033 Riverside Avenue, Jacksonville, Florida	Continuously. 2 weeks or more, full time	Pediatrics	5	$5
Tulane University of Louisiana, School of Medicine, 1430 Tulane Avenue, New Orleans, La. Write to: Dr. H. W. Kostmayer, Director, Department of Graduate Medical Studies	Jan. 25-28	Pediatrics	....	$20 [37]
Maine Medical Association, 142 High Street, Portland, Maine. Write to: Dr. Frederick R. Carter, Chairman, Committee on Graduate Education	Arranged	Home study course	Limited [7]	None
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman, Postgraduate Division	Jan. 4-30. Full time	Pediatrics	4	$50 [14]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Jan.[29] 4 weeks, part time	Clinical pediatrics	3-9	$40 [24]
	Feb.[29] 1 month, full time	Clinical pediatrics	3-5	$100 [24]
	Jan.[28,29] 4 weeks	Seminar in pediatrics	3-12	$125 [24]
	March 8-13.[29] Full time	Symposium on recent advances in pediatrics	Minimum: 5	$35 [24]
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	Jan.[29] 1 year, full time	Pediatrics	Limited [2,13]	$300
PERITONEOSCOPY—See Gastroenterology				

References will be found on p. 1421

Continuation Courses for Practicing Physicians, January 1-March 31, 1943—Continued

Institution	Schedule of Course	Title of Course	Number of Students Accepted	Registration Fee and/or Tuition
PHYSIOLOGY—See also Ophthalmology; Otolaryngology				
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Jan. 25-29.[28,29] Full time	Pathologic physiology: functional and chemical aspects	Minimum: 4	$35 [24]
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	Arranged	Research in physiology.....	....	Arranged [14]
PHYSIOTHERAPY				
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	March 15-19.[28,29]	General course	Minimum: 4	$35 [24]
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham, Executive Officer	Jan.[29] 4 weeks, part time	General course	6	$100 [24]
PROCTOLOGY				
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham, Executive Officer	Jan.[29] 6 weeks, part time	Clinical proctology, medical and operative	10	$75 [24]
	Jan.[29] 6 or 12 weeks, full time	Combined course in proctology, gastroenterology and allied subjects	10	$200 [24]
	Jan.[29] 10 lessons	Operative proctology (cadaver)	10	$200 [24]
PSYCHIATRY & NEUROLOGY				
Catholic University of America, Child Center, Washington, D. C. Write to: Dean of the Graduate School	Feb.-June.[29] 4½ months, part or full time	Clinical psychiatry	....	$150 [14]
Institute for Psychoanalysis, 43 East Ohio Street, Chicago, Ill. Write to: Helen Ross, Administrative Director	On demand. 2 weeks, part time	Clinical discussions of war neuroses	50	None
The Menninger Clinic, Topeka, Kansas. Write to: Dr. Karl Menninger, Chief of Staff	Continuously. 12 weeks, part time	Application of psychoanalysis to the study of psychiatric problems and of the psychoses	....	$20
	Quarterly. 1 year, full time	Psychoanalytic instruction	4 [1]	None
	Quarterly. 1 year, full time	Resident training	4 [1]	None
	Arranged. Full time	Short courses	....	$100 per month
Boston Psychoanalytic Institute, Psychiatry Clinic, 82 Marlborough Street, Boston, Mass.	Arranged	Civilian war neuroses and their treatment	40	None
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	Arranged	Neuroanatomy, neurophysiology, neuropathology, clinical neurology or neurosurgery [27]	....	Arranged
	Arranged	Psychiatry: general course or special fields	Individuals	Arranged
	Arranged	Research in neuropathology. Elective: Research on the cerebrospinal fluid	....	Arranged
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Monthly, 1 month or longer	Clinical neurology	1-6	$50 [24]
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia, Pa. Write to: Dr. R. C. Buerki, Dean, The Medico-Chirurgical College	Arranged. 6 weeks, 240 hours	Clinical psychiatry	Individuals [2]	$160
	Arranged. 10 weeks, part time	Clinico-biologic neurology and psychiatry	Individuals [11]	$100
PUBLIC HEALTH				
Loyola University School of Medicine, 706 Wolcott Avenue, Chicago, Ill. Write to: Miss McGowan, Secretary, Department of Preventive Medicine, Public Health and Bacteriology	Quarterly	Courses in administration, laboratory, education, mental hygiene and sanitation	Individuals	Arranged
Johns Hopkins University School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, Md. Write to: L. J. Reed, Dean	Feb.[29] 2 months	Courses in public health.....	Limited [2]	Varies
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	Feb.[29]	Advanced epidemiology	Limited	Arranged [14,15]
	Feb.[29]	Introduction to epidemiology..	Limited	Arranged [14,15]
Michigan Department of Health, Lansing, Mich. Write to: Dr. H. Allen Moyer, Commissioner	Arranged. 3 weeks, full time	Industrial medicine	....	None
University of Minnesota Medical School, Minneapolis, Minn. Write to: Dr. Harold S. Diehl, Dean	Jan.[29] 1-3 quarters	Courses for training medical health officers	....	$25, $50 [16]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Jan. 11-15.[28]	Industrial medicine	Minimum: 4	$35 [24]
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at the De Lamar Institute of Public Health. Write to: Dean	Feb. 1-13.[28] Full time	Industrial medicine and surgery	....	$60
New York State Department of Health, Cardiac Service. Write to: New York State Reconstruction Home, West Haverstraw, N. Y.	Arranged. 1 year	Extension course in public health	Limited [5]	$40
RADIOLOGY—See also Military Medicine				
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	Monthly. 1 month, full time	General roentgenology	3 [4]	$100
	Monthly. 1 month, full time	General roentgenology	2 [1]	$100
	Monthly. 1 month, full time	General roentgenology	Limited [1]	$50
	Monthly. 1 month, part time	Roentgenology in diseases of the eye, ear and accessory sinuses	3	$35
Tufts College Medical School, 30 Bennet Street, Boston, Mass. Write to: Dr. Samuel Proger, Chairman, Postgraduate Division	Jan. 12-15. Full time	X-ray interpretation	Minimum: 6	$25 [14]
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	March 29-June 18.[28,29] Full time	Basic diagnostic roentgenology and technic	4-8 [2]	$250 [24]
	Jan. 4-March 26.[28] Part time	Basic radiation therapy.....	4-8 [2]	$125 [24]
Columbia University, Faculty of Medicine, 630 West 168th Street, New York, N. Y., at affiliated hospitals. Write to: Dean	March 29-June 18.[28]	Clinical radiation therapy.....	4-8 [2]	$250

References will be found on p. 1421

Continuation Courses for Practicing Physicians, January 1-March 31, 1943—Continued

Institution	Schedule of Course	Title of Course	Number of Students Accepted	Registration Fee and/or Tuition
RADIOLOGY—See also Military Medicine—Continued				
New York Eye and Ear Infirmary, 218 Second Avenue, New York, N. Y. Write to: Mabel R. Stewart, Registrar	Monthly.[28] 6 weeks, part time	Ophthalmic and otologic roentgenology	Limited [1]	$40 [16]
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham, Executive Officer	Monthly. 6 weeks or 3 months, full time	Diagnostic roentgenology and radiotherapy (advanced)	10 [2]	$150, $300 [24]
RHINOLOGY—See Otolaryngology				
SURGERY—See also Anatomy; Dermatology and Syphilology; Military Medicine; Obstetrics and Gynecology; Ophthalmology; Orthopedics; Otolaryngology; Psychiatry and Neurology; Public Health				
Florida Medical Association, Inc. Write to: Dr. T. Z. Cason, Chairman, Medical Postgraduate Course, 2033 Riverside Avenue, Jacksonville, Florida	Continuously. 2 weeks or more, full time	Orthopedic surgery	10	$5
Maine Medical Association, 142 High Street, Portland, Maine. Write to: Dr. Frederick R. Carter, Chairman, Committee on Graduate Education	Arranged	Home study course	Limited [7]	None
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober, Ass't Dean, Courses for Graduates	Monthly. 1 month, part time	Clinical orthopedic surgery	1 or more	$50
	Jan., Feb., March.[29] 1 month or more, part time	Clinical urology (major genito-urinary surgery)	Limited [4]	$75 per month
	Monthly. Hours arranged	Endoscopy	2	Arranged
	March-April.[29] 1 month, full time	General course in orthopedic surgery	Minimum: 15	$150
	Feb.[29] 4 weeks, full time	General surgery	Limited	$100
	Arranged. 1 month, full time	Minor surgery, designed for practitioners	Minimum: 8	$150
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Arranged. 8 sessions	Blood transfusion: blood and plasma bank	1-8	$35 [24]
	March.[28,29] 6 days, full time	Diagnosis and treatment of trauma	5-30	$35 [24]
	Arranged. 12 sessions	Dissection and surgical anatomy	Minimum: 2 [2]	$125 [24]
	Arranged. 12 sessions	Surgical anatomy as applied to thoracic surgery (cadaver)	2-6 [2]	$125 [24]
New York Medical College, Flower and 5th Avenue Hospitals, 5th Avenue at 105th Street, New York, N. Y. Write to: Dr. J. A. W. Hetrick, Dean	Arranged. 60 hours	Surgical technic (dog)	....	$250 [17]
New York Polyclinic Medical School and Hospital, 345 West 50th Street, New York, N. Y. Write to: Dr. F. H. Dillingham, Executive Officer	Jan.[29] 3 months, full time	Combined surgical course	10 [2]	$350 [24]
	Jan.[29] 6 weeks, full time	Operative clinic and lecture course	10	$100 [24]
SYPHILOLOGY—See Dermatology and Syphilology				
TROPICAL MEDICINE				
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Feb. 1-5.[28] Full time	Tropical medicine	Minimum: 4	$50 [24]
TUBERCULOSIS				
California Tuberculosis Association, 45 Second Street, San Francisco, Calif. Write to: Mr. Wm. F. Higby, Secretary	Arranged. 1 week	Tuberculosis	Individuals	None [25]
City of Chicago Municipal Tuberculosis Sanitarium, 2049 Washington Boulevard, Chicago, Ill. Write to: Department of Clinics	On request. 2 months, part time	Comprehensive course in tuberculosis	Minimum: 20	None
	Continuously. Part time	Tuberculosis	....	None
Mississippi State Sanatorium, Sanatorium, Miss. Write to: Dr. Henry Boswell, Superintendent	Arranged. 2 weeks or more	Clinical medicine and chest diseases	....	None
New York Medical College, Flower and 5th Avenue Hospitals, 5th Avenue at 105th Street, New York, N. Y. Write to: Dr. J. A. W. Hetrick, Dean	Arranged. 1 month, full time	Diagnosis and treatment	....	$100
UROLOGY—See also Anatomy; Surgery				
Harvard Medical School, 25 Shattuck Street, Boston, Mass. Write to: Dr. Frank R. Ober. Ass't Dean, Courses for Graduates	Monthly, Oct., May. 1 month or more, full time	Urology	....	$75 per month
Joint Committee on Post-Graduate Education, 1313 Bedford Avenue, Brooklyn, N. Y., at the Long Island College of Medicine. Write to: Dr. Simon R. Blatteis, Chairman	Monthly. 1 month or more, part time	Urology	3	$25 per month
Columbia University, Faculty of Medicine, at the New York Postgraduate Medical School, 303 East 20th Street, New York, N. Y. Write to: Director of the School	Arranged	Short courses in special subjects	Individuals [2]	Arranged
University of Pennsylvania Graduate School of Medicine, 237 Medical Laboratories, Philadelphia, Pa. Write to: Dr. R. C. Buerki, Dean, The Medico-Chirurgical College	Arranged. 6 weeks, part time	Cystoscopy, chromoureteroscopy and pyelography	Individuals [2]	0300
VENEREAL DISEASE CONTROL—See also Dermatology and Syphilology; Obstetrics and Gynecology				
Institute for the Control of Syphilis, University of Pennsylvania Hospital, 3400 Spruce Street, Philadelphia, Pa. Write to: Dr. John H. Stokes, Director	Arranged. 5 or 10 days	Management of syphilis and and other venereal diseases	....	$25
	Arranged. 1 month or more	Management of venereal diseases	Individuals	$50 per month

1. Physicians who have had adequate preliminary training and/or experience.
2. Specialists.
3. Limited to applicants approved by the instructor, department head, etc.
4. Male physicians only.
5. Physicians licensed to practice in the state.
6. Physicians who wish to specialize.
7. Members of the organization.
8. Officers of the United States Army, Navy or Naval Reserves on active duty.
9. Medical Reserve Officers of the United States Army.
10. Fellows and Junior Candidates of the college.
11. A faculty course for staff members of mental institutions.
12. Microscope required.
13. A temporary license to practice medicine in the state is required.
14. A registration fee of $5 covers all courses taken within the year.
15. Plus a laboratory fee.
16. Plus a matriculation fee and/or incidental fee.
17. If two or more students register for the course at the same time, a reduction in the fee will be made.
18. If taken in conjunction with the next course above/below (Gastroscopy/Peritoneoscopy), the fee for the combined course will be $125.
19. Includes a subscription to the organization's publication.
20. No fee for members of the organization.
21. No fee for physicians in military service.
22. Half fee for physicians in the military service.
23. Returned on satisfactory completion of the course.
24. Grants may be made from a scholarship fund.
25. Per diem and/or maintenance provided.
26. A monthly stipend is paid.
27. Assistantships, internships, residencies available.
28. Register two to six weeks in advance.
29. Repeated.
30. Longer courses arranged in units of 12 sessions each.
31. Given at separate hospitals for Negro and white physicians.
32. Applicants must not be over 36 years of age.
33. Plus service in the outpatient department.
34. Part of the course may be taken at a reduced fee.
35. Physicians recommended by directors of state or city health departments.
36. Physicians in the local area.
37. Registration fee of $3 applied on tuition.
38. For physicians under 49 years of age.
39. $50. For physicians in armed forces.

Medical Examinations and Licensure

COMING EXAMINATIONS AND MEETINGS

ANNUAL CONGRESS ON MEDICAL EDUCATION AND LICENSURE

CHICAGO, Feb. 15-16, 1943. Sec., Council on Medical Education and Hospitals, Dr. H. G. Weiskotten, 535 North Dearborn Street, Chicago.

NATIONAL BOARD OF MEDICAL EXAMINERS EXAMINING BOARDS IN SPECIALTIES

Examinations of the National Board of Medical Examiners and Examining Boards in Specialties were published in THE JOURNAL, Dec. 19, page 1337.

BOARDS OF MEDICAL EXAMINERS

ALABAMA: Montgomery, June 15-16. Sec., Dr. B. F. Austin, 519 Dexter Ave., Montgomery.

ARIZONA: * Phoenix, Jan. 5-6. Sec., Dr. J. H. Patterson, 826 Security Bldg., Phoenix.

ARKANSAS: * *Eclectic.* Little Rock, June 3-4. Sec., Dr. C. H. Young, 1415 Main St., Little Rock.

CONNECTICUT: * Hartford, March 9-10. *Endorsement.* Hartford, March 23. Sec. to the Board, Dr. Creighton Barker, 258 Church St., New Haven.

DELAWARE: Dover, July 13-15. Sec., Medical Council of Delaware, Dr. Joseph S. McDaniel, 229 S. State St., Dover.

DISTRICT OF COLUMBIA: * Washington, May 10-11. Sec., Commission on Licensure, Dr. George C. Ruhland, 6150 E. Municipal Bldg., Washington.

FLORIDA: * Jacksonville, June 21-22. Sec., Dr. William M. Rowlett, Box 786, Tampa.

GEORGIA: March. Sec., State Examining Boards, Mr. R. C. Coleman, 111 State Capitol, Atlanta.

HAWAII: Honolulu, Jan. 11-14. Sec., Dr. James A. Morgan, 48 Young Bldg., Honolulu.

IDAHO: Boise, Jan. 12. Dir., Bureau of Occupational Licenses, Mr. Walter Curtis, 355 State Capitol Bldg., Boise.

ILLINOIS: Chicago, Jan. 19-21. Superintendent of Registration, Department of Registration and Education, Mr. Philip M. Harman, Springfield.

INDIANA: Indianapolis, Jan. 13-15. Sec., Board of Medical Registration and Examination, Dr. W. C. Moore, 301 State House, Indianapolis.

IOWA: * Iowa City, Feb. 22-24. Dir., Division of Licensure and Registration, Mr. H. W. Grete, Capitol Bldg., Des Moines.

KENTUCKY: Louisville, March 2-4. Sec., State Board of Health, Dr. A. T. McCormack, 620 S. Third St., Louisville.

MAINE: Portland, March 9-10. Sec., Board of Registration of Medicine, Dr. Adam P. Leighton, 192 State St., Portland.

MASSACHUSETTS: Boston, March 9-12. Sec., Board of Registration in Medicine, Dr. H. Q. Gallupe, 413-F State House, Boston.

MICHIGAN: * Ann Arbor and Detroit, June 11-13. Sec., Board of Registration in Medicine, Dr. J. Earl McIntyre, 100 W. Allegan St., Lansing.

MINNESOTA: * Minneapolis, Jan. 19-21. Sec., Dr. Julian F. Du Bois, 230 Lowry Medical Arts Bldg., St. Paul.

MISSISSIPPI: Jackson, December. Asst. Sec., State Board of Health, Dr. R. N. Whitfield, Jackson.

MISSOURI: St. Louis, Feb. 16-18 and March 23-25. Sec., State Board of Health, Dr. James Stewart, State Capitol Bldg., Jefferson City.

MONTANA: Helena, April 6-7. Sec., Dr. Otto G. Klein, First National Bank Bldg., Helena.

NEW HAMPSHIRE: Concord, March 11-12. Sec., Board of Registration in Medicine, Dr. Deering G. Smith, State House, Concord.

NEW MEXICO: * Santa Fe, April 12-13. Sec., Dr. Le Grand Ward, 135 Sena Plaza, Santa Fe.

NEW YORK: Albany, Buffalo, New York and Syracuse, Jan. 25-28. Chief, Bureau of Professional Examinations, Mr. H. L. Field, 315 Education Bldg., Albany.

NORTH CAROLINA: December. Sec., Dr. W. D. James, Hamlet.

NORTH DAKOTA: Grand Forks, Jan. 5-8. Sec., Dr. G. M. Williamson, 4½ S. Third St., Grand Forks.

OREGON: *Written.* Portland, January. Exec. Sec., Miss Lorienne M. Conlee, 608 Failing Bldg., Portland.

PENNSYLVANIA: *Written.* Philadelphia, Jan. 5-7. *Bedside.* Philadelphia, Jan. 8-9. Act. Sec., Bureau of Professional Licensing, Mrs. Marguerite G. Steiner, Department of Public Instruction, 358 Education Bldg., Harrisburg.

RHODE ISLAND: * Providence, Jan. 7-8. Chief, Division of Examiners, Mr. Thomas B. Casey, 366 State Office Bldg., Providence.

SOUTH DAKOTA: Pierre, Jan. 19-20. Dir., Medical Licensure, State Board of Health, Dr. J. F. D. Cook, Pierre.

TEXAS: Austin, Dec. 28-30. Sec., Dr. T. J. Crowe, 918-20 Texas Bank Bldg., Dallas.

UTAH: Salt Lake City, June. Dir., Department of Registration, Mr. G. V. Billings, 324 State Capitol Bldg., Salt Lake City.

VERMONT: Burlington, March 25-27. Sec., Dr. F. J. Lawliss, Richford.

WASHINGTON: * Seattle, Jan. 11-13. Dir., Department of Licenses, Mr. Thomas A. Swayze, Olympia.

WEST VIRGINIA: Charleston, March 1-3. Commissioner, Public Health Council, Dr. C. F. McClintic, State Capitol, Charleston.

WISCONSIN: * Madison, Jan. 12-14. Sec., Dr. H. W. Shutter, 425 E. Wisconsin Ave., Milwaukee.

WYOMING: Cheyenne, Feb. 1-2. Sec., Dr. M. C. Keith, Capitol Bldg., Cheyenne.

* Basic Science Certificate required.

BOARDS OF EXAMINERS IN THE BASIC SCIENCES

CONNECTICUT: Feb. 13. Address State Board of Healing Arts, 1945 Yale Station, New Haven.

DISTRICT OF COLUMBIA: Washington, April 19-20. Sec., Commission on Licensure, Dr. George C. Ruhland, 6150 E. Municipal Bldg., Washington.

FLORIDA: DeLand, June 9. Sec., Dr. J. F. Conn, John B. Stetson, University, DeLand.

IOWA: Des Moines, Jan. 12. Dir., Division of Licensure & Registration, Mr. H. W. Grefe, Capitol Bldg., Des Moines.

MICHIGAN: Ann Arbor and Detroit, Feb. 12-13. Sec., Miss Eloise LeBeau, 101 N. Walnut St., Lansing.

MINNESOTA: Minneapolis, Jan. 5-6. Sec., Dr. J. C. McKinley, 126 Millard Hall, University of Minnesota, Minneapolis.

NEBRASKA: Omaha, Jan. 12-13. Dir., Bureau of Examining Boards, Mrs. Jeannette Crawford, 1009 State Capitol Bldg., Lincoln.

NEW MEXICO: Albuquerque, Feb. 1. Sec., Miss Pia Joerger, State Capitol, Santa Fe.

OKLAHOMA: Oklahoma City, May, 1943. Sec., Dr. Oscar C. Newman, Shattuck.

OREGON: Portland, Feb. 13. Sec., Board of Higher Education, Mr. Charles D. Byrne, University of Oregon, Eugene.

RHODE ISLAND: Providence, Feb. 17. Chief, Division of Examiners, Mr. Thomas B. Casey, 366 State Office Bldg., Providence.

WASHINGTON: Seattle, Jan. 7-8. Dir., Department of Licenses, Mr. Thomas A. Swayze, Olympia.

Alabama Reciprocity Report

The Alabama State Board of Medical Examiners reports 11 physicians licensed to practice medicine by reciprocity and 3 physicians so licensed on endorsement of credentials of the National Board of Medical Examiners from August 15 through October 5. The following schools were represented:

School	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
University of Illinois College of Medicine		(1924)	Illinois
Louisiana State University School of Medicine		(1934), (1941)	Louisiana
Tulane University of Louisiana School of Medicine		(1940)	Mississippi
St. Louis University School of Medicine		(1927)	Missouri
Long Island College of Medicine		(1938), (1940)	New York
University of Tennessee College of Medicine		(1937), (1941, 2)	Tennessee
University of Texas School of Medicine		(1923)	Texas

School	LICENSED BY ENDORSEMENT	Grad. Year
College of Medical Evangelists		(1940)
Johns Hopkins University School of Medicine		(1926)
Albert-Ludwigs-Universität Medizinische Fakultät, Freiburg		(1935)

Kentucky Reciprocity Report

The Kentucky State Board of Health reports 8 physicians licensed to practice medicine by reciprocity and 3 physicians so licensed by endorsement from July 24 through Oct. 21, 1942. The following schools were represented:

School	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Rush Medical College		(1901), (1934)	Illinois
Johns Hopkins University School of Medicine		(1919)	Maine
Columbia University College of Physicians and Surgeons		(1918)	New York
Ohio State University College of Medicine		(1941)	Ohio
University of Cincinnati College of Medicine		(1941)	Ohio
Medical College of the State of South Carolina		(1941)	S. Carolina
College of Physicians and Surgeons, Memphis		(1910)	Tennessee

School	LICENSED BY ENDORSEMENT	Year Grad.	Endorsement of
College of Medical Evangelists		(1942)	N. B. M. Ex.
Eclectic Medical College, Cincinnati		(1925)	U.S.P.H.S.
Université de Lausanne Faculté de Médecine		(1939)	N. B. M. Ex.

Ohio Endorsement Report

The Ohio State Medical Board reports 21 physicians licensed to practice medicine by endorsement on Oct. 6, 1942. The following schools were represented:

School	LICENSED BY ENDORSEMENT	Year Grad.	Endorsement of
Yale University School of Medicine		(1936)	N. B. M. Ex.
Georgetown University School of Medicine		(1938)	N. B. M. Ex.
Loyola University School of Medicine		(1933)	Wisconsin
National Medical College, Chicago		(1897)	Alabama
University of Louisville School of Medicine		(1930), (1942, 3)	Kentucky
Tufts College Medical School		(1906)	Mass.
University of Michigan Medical School		(1934)	Michigan
Detroit College of Medicine		(1907)	Michigan
St. Louis University School of Medicine		(1940)	Missouri
Creighton University School of Medicine		(1941)	Nebraska
Cornell University Medical College		(1941)	N. B. M. Ex.
Hahnemann Medical College and Hospital of Phila.		(1939)	Penna.
Jefferson Medical College of Philadelphia		(1928)	Penna.
Vanderbilt University School of Medicine		(1940)	Tennessee
University of Virginia Department of Medicine		(1938), (1942)	Virginia
Medizinische Fakultät der Universität Wien		(1918)	Wisconsin
Magyar Királyi Pázmány Petrus Tudományegyetem Orvosi Fakultasa, Budapest		(1909)	Louisiana

Missouri Reciprocity Report

The State Board of Health of Missouri reports 18 physicians licensed to practice medicine by reciprocity and 3 physicians so licensed on endorsement of credentials of the National Board of Medical Examiners on Sept. 28, 1942. The following schools were represented:

School	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
University of Arkansas School of Medicine		(1938)	Arkansas
Stanford University School of Medicine		(1941)	California
Howard University College of Medicine		(1939)	Virginia
University of Illinois College of Medicine		(1925)	Kentucky
State University of Iowa College of Medicine		(1925)	Iowa
University of Kansas School of Medicine		(1937), (1941)	Kansas
Tufts College Medical School		(1935)	Connecticut
Ensworth Medical College		(1907)	Kansas
St. Louis College of Physicians and Surgeons		(1910)	Arkansas
Cotner University Medical Department		(1894)	Colorado
Columbia University College of Physicians and Surgeons		(1933)	New York
Cornell University Medical College		(1935)	New Jersey
Jefferson Medical College		(1939)	Michigan
Temple University School of Medicine		(1931)	Penna.
Woman's Medical College of Pennsylvania		(1937)	Virginia
University of Tennessee College of Medicine		(1940)	Tennessee
University of Wisconsin Medical School		(1939)	Wisconsin

School	LICENSED BY ENDORSEMENT	Grad. Year
University of Colorado School of Medicine		(1938)
St. Louis University School of Medicine		(1941)
Columbia University College of Physicians and Surgeons		(1930)

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Workmen's Compensation Acts: Death from Carcinoma of Testicle Allegedly Accelerated by Industrial Accident.—Jensen, after submitting to a "whole physical examination," was employed by a mining company. About four months later, Jan. 3, 1941, while in the course of his employment, he fell from a saw horse, or from a box placed on a saw horse, striking his right testicle on a piece of coal or on the bar he was using in the mining operation in which he was engaged. On returning home that evening he complained to his wife of pain and exhibited a bruised right testicle. Either that night or the next he was attended by Dr. Long, the company physician, who in his report to the company stated that the worker had a "contusion of the right testicle." Jensen continued his employment until January 14, at which time the pain had become so intense that he was forced to stop work. He was hospitalized February 1 and died May 3. From an autopsy the cause of death was diagnosed as "primary carcinoma of right testicle with carcinomatosis." His widow and children instituted proceedings under the workmen's compensation act of Utah and the industrial commission, which heard the proceeding, awarded compensation on a finding that the deceased had suffered an accidental injury, that the accident arose out of or in the course of his employment and that the accidental injury caused his death or aggravated and accelerated a preexisting condition which resulted in death. The employer appealed to the Supreme Court of Utah.

On appeal it was contended, apparently, that there was no evidence to justify the finding of the industrial commission that the accidental injury suffered by the deceased had caused his death or had aggravated or accelerated a preexisting condition which resulted in his death. As the commission indicated, said the Supreme Court of Utah, Jensen was probably suffering from carcinoma at the time of the industrial accident. Dr. Ogilvie testified before the commission that the cause of death was "primary carcinoma of the right testicle with carcinomatosis," but he refused to speculate on the question as to whether or not the injury accelerated the preexisting cancerous condition, stating that "sometimes trauma greatly accelerates the growth of cancer but sometimes it does not." The medical profession, continued the court, has been unable definitely to determine the cause and cure of cancer and is hesitant to make any positive statement concerning it. We have here a situation in which the deceased received an injury to his right testicle. Swelling and pain immediately followed and became progressively worse, ending in death. The circumstantial evidence indicates that the injury aggravated and accelerated the cancerous condition contributing to the death of the worker. This is the more probable and rational explanation of the factors leading up to the death of the worker.

In this case, continued the court, there is no medical evidence on the question of whether or not the effect of the blow accelerated the preexisting condition, the medical witnesses refusing to speculate, but the commission drew the inference that there was a definite connection between the blow and the acceleration of the condition, because apparently the acceleration did begin with that event. To warrant recovery in such cases we do not think it necessary for the claimant to procure a physician who will make a positive statement, for it is obvious that no positive statement can be expected. Even physicians have no television of the pathologic history of the inside of a man. When the event of accident is definite and injures a particular member or part of the body and afterward disability or death occurs and the progression toward disability or death can definitely be ascertained as beginning with the former event because the history of the progression directly involves a worsening of the member or part to which the injury occurred or the evidence involves a connection between the trauma and other affected parts in the history of the progressive worsening, there will be sustaining evidence for an award. If there is a doubt introduced by a conflict of testimony before the industrial commission as to whether the accidental event was the cause of the disability, the decision of the commission as a resolution of that doubt will be sustained unless it appears to be so apparently against common sense as to be arbitrary. In this case, we cannot say that the commission was not justified in inferring that the trauma accelerated the cancerous condition contributing to the death of the worker, although an opposite finding could have been made. When two conflicting inferences might reasonably be drawn, this court will not reverse a decision which adopts the more probable of the two.

For the reasons stated, the award of compensation was affirmed.—*Utah Fuel Co. v. Industrial Commission, 126 P. (2d) 1070 (Utah, 1942).*

Workmen's Compensation Acts: Death from Cerebral Embolism Following Rupture of Left Saphenous Internal Vein.—The workman, a school janitor, while pushing in the course of his employment a broom mop, weighing about 25 pounds, up a ramp, ruptured his left saphenous internal vein half way between the knee and the hip joint. From this thrombophlebitis in both legs and a series of pulmonary embolisms developed. One month and four days after the industrial accident he suffered a cerebral embolism or lesion causing a flaccid paralysis of the right side, from which he died six days later. Proceedings to recover compensation under the Utah workmen's compensation act were instituted by his widow but his employer denied that the cerebral emboli causing death resulted from the industrial accident. The industrial commission entered an order denying compensation on the ground that the death did not result from the industrial accident and the claimant, the widow, brought certiorari to the Supreme Court of Utah.

But one question is presented for our determination, said the Supreme Court. Was the commission arbitrary in not finding from the record that the cerebral embolism from which the worker died was the result of the industrial injury he suffered? Where the evidence before the industrial commission will sustain different conclusions, this court will not weigh the evidence and draw its own conclusion therefrom. The conclusion of the industrial commission will be upheld by this court if reasonable minds, in view of and from the evidence in the record, could so conclude. But to sustain the conclusion of the commission the evidence must be substantial evidence, competent evidence, evidence on which a reasonable mind, a judicious mind, may be

content to rest its judgment. Is the conclusion of the commission that the cerebral embolism causing death was not a result of the rupture and thrombosis of the saphenous vein sustained by any substantial competent evidence? If there is substantial competent evidence to sustain it, then it cannot be said to be arbitrary or capricious. If, on the other hand, there is no substantial competent evidence to sustain it, and there is material, substantial, competent, uncontradicted evidence impelling a contrary conclusion, then the holding of the commission would be unreasonable, arbitrary and capricious and could not stand.

All the evidence, continued the court, pertaining in any way or in any degree to the cause of death consists of the case record kept by the attending physician of the workman, in the death certificate issued by that physician, in the testimony of Dr. Aird, who during the period between the injury and death twice examined the workman in consultation with the attending physician, in the testimony of Dr. Cullimore, who was called as an expert by the insurance carrier of the employer, and in a written expert opinion by Dr. Viko based on an examination at the request of the industrial commission of the record after the conclusion of the hearing. The case record kept by the attending physician shows the industrial accident on January 13, the development of thrombophlebitis in the left leg and a series of pulmonary embolisms beginning February 4, all undisputedly caused by the thrombophlebitis in the leg. On February 14 a pulmonary embolism (this, the court remarking, would result in increasing the pressure of the blood in the right auricle of the heart) was accompanied by a jerking of the left leg similar to that which often occurs on and is suggestive of a lesion of the middle left cerebral artery. On February 16 there was another pulmonary embolism (which would further increase the pressure of the blood in the right auricle of the heart). And there was also an embolism or plugging of an artery in the right leg and, on February 17, a cerebral embolus or lesion, evidenced by a jerking of the right leg and followed by paralysis of the right side from which death resulted on February 23. The record kept by the attending physician, said the court, concludes with a notation of death from "1. Cerebral emboli causing paralysis right side. 2. Following thrombosis left internal sapheneous vein." The death certificate, executed by the attending physician reads "Immediate cause of death: cerebral emboli causing paralysis right side. Due to: Following thrombosis left internal saphaneous vein. Due to rupture January 13."

The attending physician, said the court, died before the hearing conducted by the industrial commission and so could not amplify his rather complete written records. Dr. Aird testified at the hearing that during the illness of the workman he had twice visited him in consultation with the attending physician and found the patient suffering from thrombophlebitis as a result of the accident, also from pulmonary embolisms as a result of the leg conditions. In response to a question as to whether or not, in his opinion, death was connected with the industrial accident, Dr. Aird answered: "Yes, I would be strongly of the opinion that it was . . . undoubtedly to my mind he got an embolus from the lung condition to the brain." This physician attributed the lung disorder to an embolus and stated that it was possible to have a cerebral embolism from an embolism originating in the venous system in another part of the body. Dr. Cullimore, called as an expert by the insurance carrier, in answer to a hypothetic question embracing most of the facts developed in the case, stated that, while it was questionable whether the accident was the direct cause of death, the accident probably was an indirect cause of death, the direct cause being the cerebral embolus. The indirect cause of death, according to this physician, could be an aftermath of the thrombosed vein, the physician stating

> This man may have had a thrombus set up in a vein in the brain, or he may have had it in the liver . . . or any place because of the fact that he had it existing down here [in the leg]. This man had it extensive and it is more likely it was a migratory thing.

This witness thought that it was possible that there was a connection between the accident and the final cerebral condition.

The industrial commission, said the Supreme Court, on its own motion at the close of the hearing submitted the record to Dr. Viko for his opinion on a medical interpretation of the record. Viko expressed the opinion that the record was clear that the cerebral lesion which caused death was due to the emboli from the vein in the leg and he pointed out how in his opinion every step, even prior pulmonary embolisms, with consequent increase in auricular blood pressure, conditions conducive to and perhaps necessary for venous emboli passing into the general arterial systems, existed in this case, even timed right for such things to happen. Dr. Viko stated in his opinion:

> The first of these considerations means that at the same time as the pulmonary embolism of February 14 there was a lesion though temporary of the left middle cerebral artery, and the second consideration means that at the same time as the pulmonary embolism of February 16 there was a plugging of an artery in the right leg. The coincidence in the time of these widely separated occlusions of arteries in lung, leg and brain is too clear to justify one assuming that in the case of the lung artery the plugging was due to an embolism in the leg and that the plugging of the other two arteries was independent therefrom as if due to thrombosis or hemorrhage in each of those other arteries. It therefore seems only reasonable to assume that the plugging in each of the three arteries had a common origin and, since as noted above the origin of the pulmonary emboli lays almost certainly in a vein in the leg, that the plugging of the cerebral artery and the artery of the leg was also due to the emboli from the vein in the leg.

The record of the attending physician, said the court, indicates that he considered the cerebral condition the result of the injury to the leg. Dr. Aird's opinion was positive to the same effect. Dr. Cullimore recognized the connection as probable and Dr. Viko pointed out that any other conclusion would not be medically sound. As to the cerebral lesion being the result of an emboli from the leg, there was no difference of opinion among the physicians. As to the process by which the emboli passed from the leg to the brain, the physicians each described a different possible process. But the process or route traveled by the emboli is merely incidental. It enters into the picture only to see whether or not it is possible for thrombophlebitis in the leg to produce an arterial embolism in the brain. All the evidence is in accord that it can do so. And all the evidence is in accord that in this case it did do so. There was therefore no conflict in the evidence on any material issue. Since the industrial commission was not required to find and did not make a finding with respect to how the emboli from the leg reached the brain, but merely found it did not do so, that finding is directly contrary to the undisputed evidence of all the physicians, not only that it could do so but that in this case it did do so. The Supreme Court therefore concluded that on the record submitted to it the evidence, uncontradicted and unquestioned, consistent with itself, with all general knowledge and with medical knowledge, opinions and authorities, compels a finding that the cerebral embolism or lesion from which the workman died resulted from the leg condition, admittedly the result of the accident. The order of the industrial commission denying compensation was accordingly vacated and set aside.—*Peterson v. Industrial Commission, 129 P. (2d) 563 (Utah, 1942).*

Society Proceedings

COMING MEETINGS

Annual Congress on Industrial Health, Chicago, Jan. 11-13. Dr. Carl M. Peterson, 535 North Dearborn St., Chicago, Secretary.

Annual Congress on Medical Education and Licensure, Chicago, Feb. 15-16. Dr. H. G. Weiskotten, 535 North Dearborn St., Secretary.

American Academy of Orthopaedic Surgeons, Chicago, Jan. 17-21. Dr. Myron O. Henry, 825 Nicollet Ave., Minneapolis, Acting Secretary.

Annual Forum on Allergy, Cleveland, Jan. 9-10. Dr. Jonathan Forman, 956 Bryden Road, Columbus, Ohio.

Clinical Orthopaedic Society, Chicago, Jan. 18-21. Dr. Myron O. Henry, 825 Nicollet Ave., Minneapolis, Secretary.

Eastern Section, American Laryngological, Rhinological and Otological Society, Hartford, Conn., Jan. 15. Dr. Edward J. Whalen, 750 Main St., Hartford, Conn., Chairman.

Middle Section, American Laryngological, Rhinological and Otological Society, Detroit, Jan. 20. Dr. Voss Harrell, 2539 Woodward Ave., Detroit, Chairman.

Southern Section, American Laryngological, Rhinological and Otological Society, Chattanooga, Tenn., Jan. 28. Dr. Francis B. Blackmar, 1301 Broadway, Columbus, Ohio, Chairman.

Western Section, American Laryngological, Rhinological and Otological Society, Portland, Ore., Jan. 31. Dr. Irving M. Lupton, 1020 S.W. Taylor St., Portland, Ore., Chairman.

Current Medical Literature

AMERICAN

The Association library lends periodicals to members of the Association and to individual subscribers in continental United States and Canada for a period of three days. Three journals may be borrowed at a time. Periodicals are available from 1932 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied by stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Periodicals published by the American Medical Association are not available for lending but can be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

Alabama State Medical Assn. Journal, Montgomery

12:101-128 (Oct.) 1942

Preparation of Human Plasma: Its Use in Treatment of Shock. I. M. Wise, Mobile.—p. 101.
Health of Civilian Population. F. J. Underwood, Jackson, Miss.—p. 104.
Sulfathiazole Intoxication. B. H. Wiesel, Tuscaloosa.—p. 106.
Treatment of Biliary Lithiasis. W. C. Simpson, Gadsden.—p. 110.
Exanthema Subitum: Review of Recent Literature and Report of Case. M. J. Abrams, Brewton.—p. 113.

American Heart Journal, St. Louis

24:435-578 (Oct.) 1942

Clinical Studies on Digoxin, Purified Digitalis Glycoside. O. A. Rose, R. C. Batterman and A. C. DeGraff, New York.—p. 435.
Persistence of Effect After Digitalization by Combined Use of Digitalis and Ouabain. R. C. Batterman and W. W. Engstrom, New York. —p. 458.
*Electrocardiographic and Clinical Study of Lanatoside C. R. M. Tandowsky, Los Angeles.—p. 472.
Urologic Hypertension as an Entity. P. H. Wosika, F. T. Jung and C. C. Maher, Chicago.—p. 483.
Evaluation of Heart Size Measurements. H. E. Ungerleider and R. Gubner, New York.—p. 494.
Simple Method for Measuring Cardiac Area from Orthodiagram. M. Mazer, Washington, D. C.—p. 511.
Interpretation of Injury and Ischemic Effects of Myocardial Infarction in Accordance with Laws Which Determine Flow of Electric Currents in Homogeneous Volume Conductors and in Accordance with Relevant Pathologic Changes. R. H. Bayley, New Orleans.—p. 514.
Influence of Indifferent Electrode on Precordial Electrocardiogram: I. Normal Electrocardiogram. H. H. Hecht, Eloise, Mich.—p. 529.
Quinidine "Pure Quinidine" and Hydroquinidine: I. Toxicity. S. A. Weisman, Minneapolis.—p. 545.
*Thirty Years After Ligation of Anterior Descending Branch of Left Coronary Artery. S. Bradbury, Germantown, Pa.—p. 562.

Electrocardiographic and Clinical Study of Lanatoside C.—Tandowsky compared the effect on the myocardium of lanatoside C given intravenously with that of digitalis purpurea orally. The criteria of a digitalis effect were the time necessary to obtain maximal depression of the RST segment in lead 2 of the electrocardiogram, the rapidity with which the signs and symptoms of congestive failure disappeared and the time required for the abolition of the segment changes. Twenty patients received 16 grains (1 Gm.) of digitalis purpurea orally and 20 received a single dose of 1.6 mg. of lanatoside C intravenously. Particular attention was given to the incidence of toxic effects. As control, each drug was given to 2 normal adults. Of the 20 patients given lanatoside C 2 died during the study, 1 from lobar pneumonia and 1 from myocardial infarction. The average time required for the maximal change in the RST segment was three hours and six and a half minutes. This average can be reduced to two hours and forty minutes if the psychotic patient in the series is excluded. Only 1 of the group suffered from nausea. Within three hours the average heart rate was reduced from 121 beats per minute to approximately 85. The 18 surviving patients presented definite clinical evidence of improvement within six hours. Delay in auriculoventricular conduction appeared to be the exception rather than the rule. One patient had a slight nausea for forty-eight hours after the administration of lanatoside C. In the 20 given digitalis purpurea the average time required for a maximal change in the RST segment was fourteen hours and twenty-four minutes. Eight of this group suffered from severe nausea and vomiting which were traceable to the drug. There was an average reduction in the heart rate of approximately 30 beats within twenty-four hours after the administration of the whole leaf. Not unlike the group given lanatoside C a gradual clinical improvement was apparent in twenty-four hours. The auricular fibrillation of 6 patients continued throughout the observation. Urinary excretion was increased in both groups. As all the patients continued to take digitalis after the study was discontinued, no return of the segments to normal was observed. The digitalis effect of lanatoside C on the RST segment of the 2 control subjects disappeared within sixteen hours, whereas this effect persisted for forty-eight hours or more in the control subjects given digitalis purpurea. It is clear that to retain the digitalis effect for a prolonged period lanatoside C must be given frequently, and it is therefore preferable to use a digitalis preparation containing all the glycosides when continued maintenance therapy is necessary. For those patients who do not require rapid digitalization or are not suffering from gastrointestinal disturbances, the preparations of digitalis now in common use are satisfactory.

Ligation of Descending Branch of Coronary Artery.—Bradbury's examination of a woman thirty years after a stab wound in the left breast which severed the descending branch of the left coronary artery revealed no subjective symptoms of heart disease. Her blood pressure (at 75) was 170 systolic and 85 diastolic; the pulse rate was 80, the pulse was regular in rhythm but not in force, and the arteries were not particularly sclerotic. A roentgenogram of the thorax showed that the heart was not enlarged; there was good pulsation and no limitation of motion. The arch of the aorta showed definite calcification. The left half of the diaphragm was slightly elevated, but it moved freely and equally on respiration. Very slight enlargement, both of the left ventricle and of the right outflow tract, was revealed in an orthodiogram. An electrocardiogram showed an occasional premature beat, a rate of 88, a PR interval of 0.14 second, no axis deviation, inversion of T_3 and low voltage of QRS in lead 3. The chest lead was normal. Such a curve in a person of 75 is not diagnostic of heart disease.

American J. Digestive Diseases, Fort Wayne, Ind.

9:309-358 (Oct.) 1942

Nutritional Problems in Wartime. C. J. Barborka, Chicago.—p. 309.
Nonfunctioning Gastroenteric Stoma: Diagnostic Study of Sixty-Two Surgically Demonstrated Cases. G. B. Eusterman, B. R. Kirklin and C. G. Morlock, Rochester, Minn.—p. 313.
Follow-Up Results in Subtotal Gastric Resection for Ulcer. R. E. Church and J. W. Hinton, New York.—p. 317.
*The Obstructed Peptic Ulcer. S. A. Wilkinson, Boston.—p. 321.
Summary of Preventive Methods in Certain Tropical Diseases. Z. Bercovitz, New York.—p. 327.
*Metabolic Disturbances in Workers Exposed to Dinitrotoluene. L. C. McGee, Wilmington, Del.; A. McCausland, Blacksburg, Va.; C. A. Plume, Succasunna, N. J., and N. C. Marlett, Belvidere, N. J.—p. 329.
*Efficacy of Drip Method in Reduction of Gastric Acidity. A. Cornell, F. Hollander and A. Winkelstein, New York.—p. 332.
Chronic Gastric Ulcer in a Six Year Old Child. M. Kraemer, Newark, N. J., and L. Townsend, Roselle, N. J.—p. 338.
Anacidity and Gastritis Associated with Gastric Carcinoma. R. Schindler and W. M. Smith, Chicago.—p. 340.
Diagnostic Value of Serum Cholinesterase Determinations in Jaundice and in Cirrhosis of Liver. A. Schifrin, L. Tuchman, New York, and W. Antopol, Newark, N. J.—p. 342.
Consideration of Hepaticorenal Syndrome. C. G. Heyd, New York. —p. 348.
Intestinal Absorption of Amino Acid Mixture in Patients with Chronic Idiopathic Ulcerative Colitis and Enterocolitis. L. Zetzel, B. M. Banks and E. Sagall, Boston.—p. 350.
Effect of Histamine on Cinchophen Ulcers Produced in Dogs. B. Slutzky and N. Dietz, Omaha, with technical assistance of M. E. Stoner and B. J. O'Loughlin.—p. 352.
Clinical Studies of Amino Acids: I. Effect of Oral Administration of Solution of an Amino Acid Mixture on Gastric Acidity. J. S. Levy and K. A. Siler, Little Rock, Ark.—p. 354.
Use of Sulfaguanidine for Ulcerative Colitis. M. Kraemer, Newark, N. J.—p. 356.

The Obstructed Peptic Ulcer.—Wilkinson reports the results of treatment in 100 cases of pyloric obstruction due to peptic ulcer prior to 1936. General principles of therapy consisted in bed rest, a bland diet with frequent feedings, moderate use of alkalis and aspiration of stomach contents once or twice a day until the obstruction was relieved or operation was performed. Many patients responded favorably to this regimen while they were hospitalized and were discharged symptom free. Some of these remained symptom free for years (a few for more than eight years) before obstructive symptoms developed again. Many more showed signs of obstruction as soon as they reentered active life and were forced to return for operation. Medical management was most useful for those in whom

obstruction was present less than three months, whereas in those with obstruction for longer periods recurrences were almost certain in spite of apparent complete relief. The ratio of males to females among the 100 patients was 3:1, whereas with ulcer in general the ratio is nearer 10:1. The probability of recurrence in women is 10 to 1 as compared to 3 to 1 in men. The principle of the treatment followed was never to have the stomach distended and gradually to decompress it.

Metabolic Disturbances in Workers Exposed to Dinitrotoluene.—McGee and his collaborators present observations on 154 workers who came in close contact with dinitrotoluene for the first time during the past year. The workers were engaged in the manufacture of military powders. Their chief exposure to dinitrotoluene occurred in two places, designated as the "D. N. T. Screening House" and the "Coating House." One hundred and twelve men reported complaints on one or more examinations. During a period of twelve months only 42 never felt unwell. In 4 of the 42 anemia developed without other signs of illness. There was objective evidence of sickness during one or more examinations in 84 of the total group, while 32 presented complaints without having any objective evidence of intoxication or illness. No workman was so seriously affected as to require hospitalization. The most frequent symptom was an unpleasant taste in the mouth. This was followed closely in frequency by sensations of muscular weakness, headache (mild to severe, intermittent or continuous), loss of appetite and sensations of giddiness, dizziness or drunkenness. Nausea and vomiting, difficulty in sleeping and pain, numbness and tingling sensations in the extremities also were reported. On clinical examination the intoxicated workers were pale, cyanotic and anemic. Both pallor and cyanosis may be present in persons particularly sensitive to dinitrotoluene without a significant change in the blood counts. This was especially true of workmen in whom signs and symptoms developed during the first, second or third day of exposure. The low incidence of leukocytosis and leukopenia suggests that alterations in the leukocyte count early in intoxication are of doubtful significance as far as dinitrotoluene is concerned. Twenty-three of the thirty-six anemias were of hyperchromic-macrocytic type and thirteen were either normocytic-normochromic or slightly hypochromic. Symptoms of beginning intoxication disappeared within two or three days after workmen were no longer exposed. Cyanosis and pallor disappeared within a day or two. Some workmen recovered while they continued to be exposed. When anemia had developed (below 13.6 Gm. of hemoglobin per hundred cubic centimeters of blood and 4,000,000 erythrocytes) the count and hemoglobin value returned to normal slowly, in two months with presumably adequate doses of ferrous sulfate and in one month when crude liver extract and the iron medication was given. Careful and frequent reexamination of workmen exposed to dinitrotoluene appears to be essential in the proper supervision of certain operations.

Drip Method for Gastric Acidity.—Cornell and his associates compared the clinical value of certain colloidal aluminum preparations with milk to which a soluble alkali had been added, used in the drip treatment of peptic ulcer, in day and night secretion of ambulatory and hospitalized patients. Three preparations investigated were effective as intragastric neutralizing agents even during prolonged night treatment. The average p_H maintained by the aluminum phosphate and the milk-sodium bicarbonate preparations was around 4 and that of the aluminum hydroxide preparation was around 3.5, which is the boundary value for no free acid. In the control tests free acid was absent in only about 1 per cent of samples; with the milk and the aluminum hydroxide gel mixtures this occurred in about 53 per cent and with the aluminum phosphate preparation in about 60 per cent. These data indicate that none of the drip therapy procedures succeeded in maintaining the stomach free of acid throughout the entire period of treatment. On the other hand, the proportion of high p_H values indicates considerable efficiency in acidity reduction. The high and the mean p_H may be materially increased by increasing the concentration of antacid in the drip fluid and by elevating the rate of flow above that employed throughout the treatment. The apparent antacid superiority of the phosphate gel over the aluminum hydroxide and milk-sodium bicarbonate preparations may have been due to the use of the aluminum phosphate mixture without dilution.

American Journal of Hygiene, Baltimore

36:117-242 (Sept.) 1942

*Encephalitis in Man Following Vaccination with 17D Yellow Fever Virus. J. P. Fox, E. H. Lennette, C. Manso and J. R. S. Aguiar. —p. 117.

Anemia as Cause of Death in Bird Malaria. Claire McDowell Hill, Baltimore.—p. 143.

Bacteriologic Study of Streptococci Isolated from Raw Retail Milk. E. H. Beahm, Omaha.—p. 147.

Comparative Study of Behavior of Street and Fixed Viruses of Rabies in Mouse. H. C. Mason, Baltimore.—p. 153.

Epizootic Tularemia in Beaver, Castor Canadensis and Contamination of Stream Water with Pasteurella Tularensis. W. L. Jellison, G. M. Hohls, Washington, D. C.; W. J. Butler and J. A. Weaver.—p. 168.

Experimental Approach to Problem of Acquired Immunity in Human Hookworm (Necator Americanus) Infections. A. J. Sheldon, Boston, and M. E. Groover Jr., Quitman, Ga.—p. 183.

Transmission from Mother of Offspring of Immunity Against Mouse Cestode, Hymenolepis Nana Var. Fraterna. J. E. Larsh Jr., Baltimore.—p. 187.

*Leptospirosis in New York City: Serologic Survey. E. J. Tiffany and Nancy F. Martorana, New York.—p. 195.

Anaphylactogenic Properties of Normal and Virus-Infected Brains, with Special Reference to Neurokeratin. G. H. Bailey and R. E. Gardner, Baltimore.—p. 205.

Fate of Some Species of Schistosome Cercariae in Chick Embryos. S. Brackett and A. J. Beckmann.—p. 216.

Action of Bacterial Toxins on Tumors: I. Relationship of Tumor Hemorrhagic Agent to Endotoxin Antigens of Gram Negative Bacteria. P. A. Zahl, S. H. Hutner, Sophie Spitz, K. Sugiura and F. S. Cooper, New York.—p. 224.

Encephalitis Following Vaccination with 17D Yellow Fever Virus.—Fox and his colleagues summarize the history of vaccination against yellow fever in Brazil, where more than 2,000,000 persons have been vaccinated with the 17D strain of yellow fever virus. Up to July 1941 no encephalitic reactions occurred. However, in July 1941 persons manifesting definite symptoms of encephalitis were discovered among those who had recently been vaccinated against yellow fever. These reactions followed routine vaccination against the disease with a series of vaccine lots derived from a single substrain of the 17D virus. Of 55,073 persons vaccinated in the area most extensively investigated, 273 (0.5 per cent) experienced abnormally severe reactions; 199 of them presented some evidence of involvement of the central nervous system. Only one fatality is known to have occurred. The reactions were more frequent among young persons. Although only a half of the population of the area had been vaccinated, only 10 clinically similar cases occurred among the unvaccinated. Demonstration of a relatively uniform postvaccination incubation period is believed to establish firmly the causal relation of vaccination to the cases. Evidence could not be obtained that an extrinsic etiologic agent was responsible. These conclusions were supported by a well controlled field trial in which the effects of the indicted substrain with four other 17D substrains and one vaccine containing no virus were compared. Three of the other four substrains also manifested, though in much lesser degree, a tendency to cause encephalitic reactions. The field experiment further emphasized the usual early occurrence (sixth to eighth day) of the mild reactions and the later occurrence (tenth or later postvaccination day) of the more severe reactions. Evidence indicates that a "variation" had occurred in the 17D substrain used, and that this and not some adventitious agent was responsible for the reactions.

Leptospirosis in New York City.—During the last four years Tiffany and Martorana have encountered or aided in the diagnosis of leptospiral jaundice in 10 human beings in New York City. In only about a half of the patients with Weil's disease does jaundice develop and, unless physicians always keep the disease in mind, many cases will pass unsuspected or be incorrectly diagnosed. The incidence of leptospiral infection in human beings in New York City was investigated by testing the blood serum of certain groups among the population for agglutinins for Leptospira to discover how frequently the serums of persons suffering from some illness other than leptospirosis give falsely positive reactions. Blood samples from 1,351 individuals were examined. The specimens of 10 showed a positive reaction to an agglutination test of a titer of 1:320 or more; 8 gave a history of a past illness consistent with

Weil's disease. Forty-three gave positive reactions to a titer of 1:160 or less; only 3 had a history of a suggestive past illness. The stronger positive reactions were among those whose work exposed them to rat infested surroundings. In only 2 of the positive reactors had the diagnosis of Weil's disease been made during the illness. The presence of antibodies for members of the typhoid group, Brucella or the Wassermann antigen did not cause false positive reactions with the leptospira antigens. No reactions against Leptospira canicola antigens were found among the serums of 59 persons whose work brought them into frequent contact with dogs. The attending physician should be alert to the diagnosis of leptospirosis when he encounters an acute febrile illness, even without jaundice, in one whose work is likely to involve exposure to rat contaminated surfaces and especially if the illness resembles influenza, pneumonia or typhoid or if renal insufficiency or a hemorrhagic tendency is present.

American Journal of Medical Sciences, Philadelphia

204:469-624 (Oct.) 1942

Indications and Limitations of Prostatic Surgery in Presence of Cardiac Disease. J. H. Harrison, Boston.—p. 469.
Mechanism of Form of Glomerulonephritis: Nephrotoxic Nephritis in Rabbits. C. F. Kay, Philadelphia.—p. 483.
Nondiabetic Glycosuria: Follow-Up Study with Glucose Tolerance Tests. E. J. Dewees and P. H. Langner Jr., Philadelphia.—p. 491.
*Quantitative Study of Variations in Multiple Sternal Marrow Samples Taken Simultaneously. C. Reich and Elizabeth M. Kolb, New York. —p. 496.
Survival After Transfusion of Human Erythrocytes That Have Been Stored in Citrate Glucose. W. P. Belk and Florence Rosenstein, Philadelphia.—p. 504.
Blood Clot Retraction: Significance of Extracorpuscular Volume of Clot and Its Clinical Application. S. P. Lucia, P. M. Aggeler and L. H. Hamlin, Berkeley, Calif.—p. 507.
Calcareous Aortic Stenosis in Case of Dextrocardia with Situs Inversus. G. A. Abbott and H. I. Russek, Staten Island, N. Y.—p. 516.
Metabolic Studies on Neoplasm of Bone with Aid of Radioactive Stronium. Anne DeG. Treadwell, B. V. A. Low-Beer, H. L. Friedell and J. H. Lawrence, Berkeley, Calif.—p. 521.
Tolerance of Rabbits for Agglutinogen and Toxins of Hemophilus Pertussis. W. E. Ehrich, A. Bondi Jr., S. Mudd and E. W. Flosdorf, Philadelphia.—p. 530.
Effect of Acid and Alkaline Salts on Some Patients with Rheumatoid Arthritis. S. D. Jacobson, B. Leichtentritt, Eloise, Mich., and R. H. Lyons, Ann Arbor, Mich.—p. 540.
Salmonella Infection in Infants and Children. S. Bornstein and H. Schwarz, New York.—p. 546.
Cyanide Poisoning from Choke Cherry Seed. M. Pijoan, Owyhee, Nev. —p. 550.
*Effect of Benzedrine Sulfate in Migraine: Preliminary Report. J. S. Gottlieb, Iowa City.—p. 553.
Hypoglycemia Following Alcoholic Intoxication. H. St. G. Tucker Jr. and W. B. Porter, Richmond, Va.—p. 559.
Detoxification of Progesterone Derivatives in Liver. C. P. Leblond, Montreal, Canada.—p. 566.
New Concept of Cause of Patency of Ductus Arteriosus. J. A. Kennedy, Nashville, Tenn.—p. 570.
Abnormalities of Amount of Circulation (Hyperkinemia and Hypokinemia) and Their Relation to Neurocirculatory Asthenia and Kindred Diagnoses. I. Starr, Philadelphia.—p. 573.
Effect of Food and Alkali on Absorption and Excretion of Sulfonamide Drugs After Oral and Duodenal Administration. O. L. Peterson and M. Finland, Boston, with technical assistance of Alice N. Ballou. —p. 581.

Variations in Multiple Sternal Marrow Samples.—Reich and Kolb made qualitative and rough quantitative determinations of multiple sternal marrow samples. The highest mean and standard deviation for the leukocyte count was observed among diseases of the nervous system, and the highest and most variable average number of polymorphonuclears was observed among diseases of the blood forming organs. As the number of polymorphonuclears is a factor in the total count, and as two counts from a single sample tended to be more alike than four counts from two samples taken simultaneously, sufficient variation was observed in the four counts to lessen considerably the dependence which could be placed on a single quantitative estimate of the number of cells in a single sample. These observations would indicate that the validity of quantitative marrow determinations is questionable. Consequently, it seems inadvisable to continue the use of detailed quantitative data or indexes in conjunction with sternal marrow finding. This does not belittle or detract from the importance of qualitative marrow studies in establishing hematologic diagnoses.

Amphetamine Sulfate in Migraine.—Results with amphetamine sulfate in migraine, as presented by Gottlieb, suggest that the drug may be useful in the treatment of this disease. Regardless of the basic pathogenesis of migraine, evidence implicates a local disturbance of the arterial system, angiospasm or dilatation, as the immediate causal agent for a paroxysm. Amphetamine sulfate was selected because it is a sympathomimetic compound with a prolonged action and because vasoconstriction with its concomitant pressor effects was desired. As the drug can also produce intense restlessness, insomnia and cardiac irregularity, depending on idiosyncrasy, it is contraindicted for patients with cardiovascular disease, particularly those with hypertension. It must be administered with due caution. The drug was given to 25 patients suffering from typical migraine but free from other disease. If the patients reported to the hospital during an attack, the drug was administered intravenously in 3 to 20 mg. doses. The rate of injection was 1 mg. per minute for the first injection. If no untoward symptoms developed, the speed of injection was increased according to individual sensitivity as revealed by the rise in blood pressure taken at minute intervals. An increase of 20 to 40 mm. of mercury in the systolic blood pressure was used as the criterion. Following testing of their response to intravenous medication, the patients were advised to take the drug orally in 10 to 40 mg. doses at the beginning of an attack. The 7 of the 25 patients who were examined between attacks were placed directly on oral medication. Eighteen of the patients received amphetamine sulfate intravenously from one to seven times and 12 of them consistently obtained complete relief from attacks in from seven to forty-five minutes. Three of the 12 on some occasions had a recurrence of symptoms after four hours. These subsequent symptoms were relieved by further intravenous medication. Of the 6 who failed to obtain relief, 2 did so regularly from ergotamine tartrate, 1 from oxygen therapy and the other 3 failed to respond to any therapy. Of the 7 on oral therapy 5 were improved within sixty minutes and 2 were not. In contrast to these 25 patients with mild and infrequent paroxysms were 3 who had frequent severe attacks. They responded well to amphetamine sulfate when it was given intravenously. As the frequency of their paroxysms was a serious problem, the drug was tried orally in divided doses as a prophylactic agent. A maintenance dose which relieved them of their paroxysms, yet was not sufficient to cause toxic manifestations, was found for each of the 3.

American Journal of Ophthalmology, Cincinnati

25:1153-1276 (Oct.) 1942

Intrascleral Vascular Plexus and Its Relations to Aqueous Outflow. M. U. Troncoso, New York.—p. 1153.
Gonioscopic Studies on Canal of Schlemm. P. C. Kronfeld, H. Isabelle McGarry and H. E. Smith, Chicago.—p. 1163.
Aqueous Veins: I. Physiologic Importance of Visible Elimination of Intraocular Fluid. K. W. Ascher, Cincinnati.—p. 1174.
Sulfonamide Content of Aqueous Humor Following Conjunctival Application of Drug Powders: Effect of Inflammation. E. Gallardo and R. Thompson, New York.—p. 1210.
Orbital Metastasis from Tumor of Pancreas: Report of Two Cases with Necropsy Findings. H. R. Sniderman, Toronto, Canada.—p. 1215.
Angioid Streaking of Retina: Associated with Pseudoxanthoma Elasticum in Siblings. L. Lehrfeld and S. S. Brav, Philadelphia.—p. 1222.
Nodular Keratitis. O. H. Ellis, Los Angeles.—p. 1224.

American Journal of Orthopsychiatry, New York

12: 571-760 (Oct.) 1942

Children's Reactions to War. Lauretta Bender and J. Frosch, New York.—p. 571.
Psychiatric Care of Children in Wartime. Elisabeth R. Geleerd, Topeka, Kan.—p. 587.
Youth and Morale. S. D. Alinsky, Chicago.—p. 598.
Potential Functions of Psychiatric Social Worker Under Selective Service Act. Winifred W. Arrington, New York, and Grace Grossmann, Brooklyn.—p. 603.
German Cultural Paranoid Trend. R. M. Brickner, New York.—p. 611.
Speech Correction and National Defense: Neuropathic Speech Disorders. C. H. Voelker, Stillwater, Okla.—p. 633.
Criteria of Success and Failure in Child Guidance. Ruth E. Perl and A. J. Simon, New York.—p. 642.
Incorporation of Therapeutic Procedures as Part of Educative Process: Further Report. Dorothy W. Baruch, Pasadena, Calif.—p. 659.
Effects of Incest on Participants. P. Sloane, Philadelphia, and Eva Karpinski, Allentown, Pa.—p. 666.
Psychologic Factors in Obesity. G. H. Reeve, Cleveland.—p. 674.
Rorschach Analysis of Pilaga Indian Children. Anna Hartoch Schachtel, J. Henry and Zunia Henry, New York.—p. 679.

American Journal of Physiology, Baltimore

137: 473-640 (Oct.) 1942. **Partial Index**

Effect of Pulmonary Ventilation on Pressor Action of Adrenalin. G. W. Stavraky, London, Ont., Canada.—p. 485.

Evaporation from Human Skin with Sweat Glands Inactivated. E. A. Pinson, Rochester, N. Y.—p. 492.

Prothrombin Activity During Pregnancy and Lactation. J. B. Field, R. S. Overman and C. A. Baumann, Madison, Wis.—p. 509.

Use of Radioactive Phosphorus for Determining Circulating Erythrocyte Volumes. R. S. Anderson, New York.—p. 539.

Experimental Human Vitamin A Deficiency and Ability to Perform Muscular Exercise. G. Wald, L. Brouha and R. E. Johnson, Boston. —p. 551.

Relation of Diethylstilbestrol to Carbohydrate Metabolism in Adrenalectomized and Hypophysectomized Rats. R. G. Janes and W. O. Nelson, Detroit.—p. 557.

Inability of Purified or Crude Kidney Extract (Renin) to Reduce Blood Pressures of Hypertensive Dogs. M. Friedman, H. E. Kruger and A. Kaplan, San Francisco.—p. 570.

Effect of Thiamine Hydrochloride on Energy Value of Dextrose Studied in Rats by Single Food Choice Method. C. P. Richter and Katherine K. Rice, Baltimore.—p. 573.

Importance of Thyroid in Maintaining an Adequate Production of Heat During Exposure to Cold. G. C. Ring, Columbus, Ohio.—p. 582.

Some Effects of Sulfathiazole and Sulfadiazine on Man at Rest and During Exercise. F. J. W. Roughton, R. C. Darling, W. H. Forbes, S. M. Horvath, S. Robinson and J. H. Talbot, Boston.—p. 593.

Cardiovascular Action of Bile Salt with Regard to Inhibition of Cholinesterase. M. Schachter and S. Dworkin, Montreal, Canada. —p. 599.

Role of Adrenal Cortex in Anoxia: Effect of Repeated Daily Exposures to Reduced Oxygen Pressure. G. W. Thorn, B. F. Jones, R. A. Lewis, Baltimore; E. R. Mitchell, Bethesda, Md., and G. F. Koepf, Baltimore, with assistance of T. J. Kennedy Jr., H. M. Gelfand and H. Eisenberg.—p. 606.

Differential Effects of Respiration on Left and Right Ventricles. R. H. Shuler, Augusta, Ga.; C. Ensor, R. E. Gunning, W. G. Moss and V. Johnson, Chicago.—p. 620.

Am. J. Roentgenol. & Rad. Therapy, Springfield, Ill.

48: 283-424 (Sept.) 1942

New Nuclear Physics and Medicine: Caldwell Lecture, 1941. J. H. Lawrence, Berkeley, Calif.—p. 283.

Gastrointestinal Tract in Healthy Newborn Infant. S. G. Henderson, Pittsburgh.—p. 302.

Leiomyosarcoma of Esophagus. A. E. Pennes, Wadsworth, Kan.—p. 336.

*Osteopoikilosis Associated with Bronchogenic Carcinoma and Adenocarcinoma of Stomach. R. J. Ritterhoff and D. Oscherwitz, Cincinnati. —p. 341.

Roentgenologic Report of Chest Examinations Made of Registrants at U. S. Army Induction Station No. 6, Third Corps Area, Baltimore, Md., May 1, 1941 to March 31, 1942. H. E. Ashbury, J. G. Whildin and F. T. Rogers, Galveston, Texas.—p. 347.

Use of Diodrast in Determining Location and Extent of Pulmonary Embolism: Experimental Study. F. Liberson and I. R. Liberson, Stapleton, N. Y.—p. 352.

Microcephaly Following Maternal Pelvic Irradiation for Interruption of Pregnancy: Report of Case. D. P. Murphy, Philadelphia; Margaret E. Shirlock and E. A. Doll, Vineland, N. J.—p. 356.

*Contact Roentgen Therapy: Evaluation of Results from Clinical and Pathologic Standpoint. W. E. Howes and M. R. Camiel, Brooklyn. —p. 360.

Layer Technic in Radium Needle Therapy. C. L. Martin, Dallas, Texas. —p. 377.

Pathologic Aspects of Radiosensitivity of Malignant Tumors. S. Warren, Boston.—p. 384.

Osteopoikilosis.—Ritterhoff and Oscherwitz cite a case of osteopoikilosis associated with gastric adenocarcinoma and bronchogenic carcinoma. They were not able to find reports of a similar case. The abnormal densities in the bones of the shoulder girdle in the first roentgenogram of the chest could have been confused with metastasis from a pulmonary carcinoma. This was obviated by subsequent roentgen examination of the entire skeleton, which revealed the typical symmetrical widespread involvement of osteopoikilosis. The important clinical problem in the case was the differential diagnosis between tuberculosis and carcinoma of the lung. The initial occurrence of a chronic lung disease in an elderly white man with no previous history of tuberculosis should be more suggestive of a neoplastic rather than a tuberculous process, particularly when the unfavorable course is associated with stationary roentgen observations of the lungs and the failure to demonstrate tubercle bacilli.

Contact Roentgen Therapy.—The results in the first hundred lesions treated with contact or short distance roentgen therapy at the Brooklyn Cancer Institute are described by Howes and Camiel. Of 55 various basal carcinomas, 41 of 42 considered curable when first seen were controlled; in 1 the result was poor, although the condition was controlled; in 7 the therapy was palliative and the lesions of 3 were controlled, of 2 well palliated and in 2 the result was poor; 3 of 4 rodent basal cell ulcers appear controlled and 1 is progressing; the lesion of 1 patient in whom there was no biopsy is controlled, as is the clinical basal cell necrotic tissue of 1. The squamous cell carcinoma of the skin of 7 patients, judged curable and treated as basal cell lesions, was controlled, 1 after a second treatment. Three squamous cell carcinomas of the lower lip were treated successfully. The lesions of 12 patients with advanced or intractable squamous cell carcinoma treated for palliative or psychotherapeutic reasons were generally diminished in size, the exuberant overgrowths were flattened down and troublesome discharge and odor were lessened. Although it is improbable that this method of therapy will supplant older methods in the treatment of adenocarcinoma, 1 primary and 8 metastatic adenocarcinomas were palliatively treated and the local area reacted favorably with a decrease in size and diminution in troublesome discharge. Contact roentgen therapy was used on 4 patients as a keratotic prophylactic. A dosage of 3,000 to 6,000 roentgens at one sitting has been found sufficient to eradicate these lesions. The remaining 10 patients had Kaposi's disease, verrucae and corns, furunculosis and acne or angioma; the condition of 7 was cured or controlled and on 3 (the 1 with furunculosis and acne keloid and the 2 with hemangioma) the results were inconclusive. However, recent experience in hemangioma shows that results are most encouraging with an exposure of 600 to 1,000 roentgens without filter. Hemangiomas of the cavernous type should be treated with 1 mm. of aluminum filter. Patients with most of the other lesions were exposed to roentgen rays generated at 45 kilovolts, 2 milliamperes, 1.8 cm. target-skin distance and no filter. Depending on the lesion and the site to be treated, the dosage varied from 3,000 to 13,000 roentgens.

American Journal of Surgery, New York

58: 1-156 (Oct.) 1942

*Rupture of Intervertebral Disk. D. B. Eck, Memphis, Tenn.—p. 3.

*Diagnosis and Treatment of Pancreatic Disease. F. Cunha, San Francisco.—p. 16.

That Hazardous Eminence, the Colostomy Spur. C. W. Mayo and C. P. Schlicke, Rochester, Minn.—p. 29.

Repair of Prognathic and Retruded Jaws. J. Newman, Newark, N. J. —p. 35.

Acute Appendicitis: Analysis of 417 Consecutive Cases. W. Duley, New York.—p. 40.

Surgical Importance of Aberrant Renal Vessel in Infants and Children. R. R. White and G. M. Wyatt, Boston.—p. 48.

Intra-Abdominal Adhesions. R. J. Behan, Pittsburgh.—p. 58.

Proctologic Postulates from Anatomic Standpoint: Arrangement of Anorectal Musculature as Useful Surgical Landmarks. C. Eaton, Oakland, Calif.—p. 64.

Effects of Sulfonamides Used in Conjunction with Azochloramid in Localized Infections: Report of Two Cases. E. Neter, Buffalo.—p. 69.

Femoral Hernia: Simple Operation with Report of Cases. R. L. Waugh and K. F. Hausfeld, Boston.—p. 73.

Surgical Treatment of Gummas of Brain. S. W. Gross, A. Stein and P. G. Myerson, New York.—p. 78.

Arterial and Venous Mesenteric Occulsion: Analysis of Forty-Four Cases. H. Laufman and S. Scheinberg, Chicago.—p. 84.

Continuous Caudal Anesthesia. R. A. Hingson and J. L. Southworth, Stapleton, Staten Island.—p. 93.

Incisional Hernias Following Gallbladder Operations. G. A. Carlucci, New York.—p. 97.

Free Skin Grafts versus Flaps in Surface Defects of Face and Neck. J. W. Maliniac, New York.—p. 100.

Present Status of Cooling Limbs in Preparation for Surgical Procedures. R. T. McElvenny, Chicago.—p. 110.

Surgical Treatment of Carcinoma of Breast. D. E. Ross, Los Angeles. —p. 113.

Correction and Prevention of Intestinal Adhesions. D. Viggiano and L. Iacueo, New York.—p. 121.

Method of Controlling Sudden, Profuse Hemorrhage from Spleen. W. B. Levenson and A. Hurwitz, Boston.—p. 123.

*Extragenital Chorioepithelioma in Male with Associated Gynecomastia: Report of Case. H. K. Bonn and N. Evans, Los Angeles.—p. 125.

Ruptured Intervertebral Disk.—Eck reviews 250 consecutive cases in which surgical treatment was given for pain in the back due to rupture of the intervertebral disk. Its predisposing cause is weakness of the annulus fibrosus, and trauma is its precipitating factor. Another etiologic factor to be con-

sidered is calcification of the entire disk. The predisposing factor, anatomic weakness, may exist in many instances without rupture ever taking place. Trauma may be violent or severe or one of repeated minimal traumatic shocks. The rupture occurs with the spine in flexion on the occasion of trauma. Rupture occurred in the lumbar region in 243 of the 250 cases, in the cervical region in 5 and in the thoracic region in 2. Rupture usually occurs in the region of greatest lordosis. The symptoms vary with the anatomic region involved. Laboratory study is of diagnostic assistance. Spinal puncture will usually accelerate pain, especially when the lumbar area is involved. The Queckenstedt test may indicate a partial block in the thoracic and cervical regions. A positive increase of the spinal fluid protein aids in substantiating and verifying the diagnosis. Roentgen study differentiates rupture of the intervertebral disk from conditions which it simulates: tumors of the spinal cord and surrounding osseous tissues, fractures of the vertebrae without rupture of the disk, congenital anomalies and various arthritic conditions. In the presence of a reasonably positive diagnosis and persistence of symptoms despite conservative measures (traction, immobilization and physical therapy) treatment is extradural removal or partial hemilaminectomy. Laminectomy is rarely necessary. Spinal fusion is not required when little bone has been sacrificed. If postoperative pain is relieved by a brace, the brace is indicated as a stabilizing factor. Why only some patients complain of pain, which is relieved by fusion, is not yet adequately answered.

Diagnosis and Treatment of Pancreatic Disease.—According to Cunha, chronic pancreatitis should be suspected when the roentgenologist reports that the function of the gallbladder is not disturbed and that gallstones are absent yet the patient continues to complain of symptoms referable to the gallbladder. Hyperinsulinism may be a clinical manifestation of chronic pancreatitis. When patients complain of vague gastrointestional distress with definite dizziness, body trembling or syncope, hyperinsulinism and hypoglycemia should be suspected and more accurate blood sugar studies made, particularly dextrose tolerance curves in six hours and hyperinsulinism interpreted as a manifestation of a disturbed function of the pancreatic tissue, a pancreatitis. In chronic alcholism with its prominent symptoms of hunger and weakness, chronic pancreatitis should be suspected. Studies of the blood sugar and determination of the pancreatic ferment in gastrointestinal examinations may often suggest the pathologic conditions present. The author emphasizes five points in the therapy of chronic pancreatitis: a high carbohydrate intake to stimulate the production of amylopsin, elimination of direct pancreatic depressants, small doses of hydrochloric acid for patients with associated hypochlorhydria, vitamin A and iron in readily assimilable form and pancreas substance. An apparently nonfunctioning gallbladder, one that fails to respond in a reasonable length of time to accepted methods of medical therapy, should be removed. This eliminates the hazard of a possible acute pancreatitis later. Perhaps the most recent valuable therapeutic addition for the acute phase of pancreatic disease has been ephedrine.

Chorioepithelioma in Male.—Bonn and Evans report the sixth case of extragenital chorioepithelioma in the male. The case apparently fulfils the criteria necessary for extragenital origin: First, serial block sections of the testes were negative. Sixty-two sections were made without finding a primary testicular tumor. There was an area in one testis which showed a scar, but in this testis there was no tissue suggestive of malignant change. It is possible that the scar in the one testis may have been related to traumatic inflammation or even its rupture from the kick of a horse received at the age of 14 (34 at death). Second, at necropsy chorioepitheliomatous tissue was found in the lungs, mediastinal and tracheobronchial nodes, spleen and in a solitary retroperitoneal lymph node. Third, abnormal amounts of the sex hormones were found in the urine and in the tissue of the chorioepitheliomatous masses in the lungs. Fourth, there was a true gynecomastia of both breasts.

American Journal of Tropical Medicine, Baltimore

22:471-580 (Sept.) 1942

Studies on Endameba Histolytica: I. Effect of Hydrogen Ion Concentration on Encystation of Endameba Histolytica in Culture. S. L. Chang, Boston.—p. 471.
Construction of Micromanipulator for Isolation of Protozoa. C. W. Rees, Bethesda, Md.—p. 487.
First Record of Case of Human Infection with Tapeworms of Genus Mesocestoides. A. C. Chandler, Houston, Texas.—p. 493.
Relation of Hookworm Burden to Physical Status in Georgia. A. W. Hill and J. Andrews, Atlanta, Ga.—p. 499.
Invasion of Wall of Human Intestine by Ancylostomes. C. Bonne, Batavia, Java.—p. 507.
Anopheles Crucians Found in Northern Nicaragua. H. W. Kumm.—p. 511.
Feeding Habits of Anopheles Walkeri Theobald at Reelfoot Lake, Tenn. F. Bang and T. Simpson.—p. 513.
Observations on Longevity of Anopheles Culicifacies Imagines. P. F. Russell and T. Ramachandra Rao.—p. 517.
Study of Density of Anopheles Culicifacies in Relation to Malaria Endemicity. P. F. Russell and T. Ramachandra Rao.—p. 535.
Transmission of Plasmodium Gallinaceum to Mosquitoes. P. F. Russell and P. B. Menon.—p. 559.
Dog as Natural Host for Blastomyces Dermatitidis. L. Foshay, Cincinnati, and A. G. Madden Jr., Madeira, Ohio.—p. 565.
Incidence of Leptospira Icterohemorrhagiae in Trapped Rats in Philadelphia. M. Lewis, Philadelphia.—p. 571.
Notes on Commensal Rats. E. Schwarz, Washington, D. C.—p. 577.

American Review of Tuberculosis, New York

46:365-474 (Oct.) 1942

Isolation and Identification of Pathologic Fungi from Sputum. J. M. Kurung, Ray Brook, N. Y.—p. 365.
*Primary Tuberculosis Complicated by Bronchial Tuberculosis with Atelectasis (Epituberculosis). Edna M. Jones, T. N. Rafferty and H. S. Willis, Northville, Mich.—p. 392.
Clinical Episode in Tuberculosis and Meteorologic Environment. W. F. Petersen, Chicago.—p. 407.
*Hemorrhagic-Necrotic Reaction to Tuberculin Purified Protein Derivative: Shwartzman or Arthus Phenomenon? E. Urbach and H. L. Goldburgh, Philadelphia.—p. 418.
Plasma Prothrombin in Tuberculous Patients: Effect of Surgical Collapse. J. W. Savacool and R. J. Chodoff, Philadelphia.—p. 432.
Bromosulphalein Liver Function Test in Pulmonary Tuberculosis. A. L. Kruger and I. E. Gerber, Jersey City, N. J.—p. 439.

Primary Tuberculosis.—Of the four possible types of primary tuberculosis (the primary complex that soon heals, the primary complex that proves rapidly fatal, the one that progresses and the epituberculosis that masquerades as extensive pulmonary tuberculosis or tuberculous pneumonia) Jones and her co-workers discuss the last and state that the average case in this group presents a clinically typical complex. It occurs seldom in adults, is often characterized by physical signs of lobar consolidation, the roentgen shadow is dense, homogeneous and lobar in extent, the sputum is scanty or absent and nearly always negative to ordinary microscopic study. The child with this disease appears to be in surprisingly good health and exhibits a strong reaction to tuberculin and, after months without change, resolution sets in and clinical and roentgen recovery is the rule. It is the authors' belief that bronchial obstruction with atelectasis forms the basis for many of the cases and that the primary focus in the lung is followed soon by disease and enlargement of the lymph nodes at the root. To these two factors which coexist must be added a third factor—that of interference with bronchial drainage and aeration. This may be brought about by simple mechanical pressure from the enlarged lymph nodes but probably more often by direct extension of the tuberculous process from the nodes into the bronchial walls. The disease may remain in the submucosa or it may break through an ulcer or tuberculoma. The tuberculous disease, with its attendant collateral inflammation and edema, leads to paralysis of the ciliary and peristaltic motion in the area and thus there is a break in the continuity of the drainage mechanism with consequent functional, if not complete structural, blockage. These views grew out of the authors seeing 85 such tuberculous children among 716 admitted to the Children's Division of the Maybury Sanatorium. The admissions included all types of tuberculosis occurring in children. Bronchoscopic examination of 42 of the 85 children revealed that in 31, or 74 per cent, bronchial distortion or disease was present chiefly as narrowing of the lumen from pressure by enlarged lymph nodes at the root, tuberculoma and ulceration. Edema, redness and secretions were present in many. In 11 no bronchial abnormality was observed. The term epituberculosis has for many years been used to designate a clinical syndrome which is characterized by lobar consolidation,

is benign in nature and occurs in tuberculin positive children. The pathologic basis for it has never been understood clearly. Therefore the term is no longer needed and should be replaced by lobar or lobular atelectasis.

Hemorrhagic Reaction to Purified Protein Derivative.—Urbach and Goldburgh report a case of tuberculous lymphadenitis in which 0.000 002 mg. of purified protein derivative of tuberculin injected intracutaneously was followed by a severe hemorrhagic-necrotic local reaction, septic fever and thrombocytopenia. This was an expression of hypersenitiveness which corresponds clinically and microscopically to the Shwartzman phenomenon. As the manifestations were elicited only by tuberculin—and not by streptococcus vaccine—the possibility of a specific anaphylactic reaction, the Arthus phenomenon, must be considered.

Annals of Internal Medicine, Lancaster, Pa.

17:585-774 (Oct.) 1942

*Further Report on Treatment of Addison's Disease with Desoxycorticosterone Acetate by Intramuscular Injections, Subcutaneous Implantation of Pellets and Sublingual Administration. F. L. Engel, C. Cohn and L. J. Soffer, New York.—p. 585.
Deformities of Thoracic Spine as Cause of Anginoid Pain. J. R. Smith and W. B. Kountz, St. Louis.—p. 604.
*Use of Cold in Medicine. L. W. Smith, Philadelphia.—p. 618.
Systolic Murmur. J. S. Blumenthal, Minneapolis.—p. 637.
Pollen in Oil: Preliminary Report on New, Slowly Absorbed Medium for Use in Hay Fever Treatment. S. J. Taub and E. Rubens, Chicago.—p. 642.
Some Physiologic Observations on Circulation During Recovery from Vitamin B1 Deficiency. R. R. Porter and R. S. Downs, Boston.—p. 645.
Tularemia: Report of Three Fatal Cases with Autopsies. H. B. Thomas, York, Pa.—p. 659.
*Detection of Subclinical Scurvy or Vitamin C Deficiency. J. F. Rinehart and L. D. Greenberg, San Francisco.—p. 672.
Coronary Occlusion: Clinical Study of 100 Patients. C. Smith, H. C. Sauls and J. Ballew, Atlanta, Ga.—p. 681.
*Pneumococcic Meningitis. J. M. Ruegsegger, Cincinnati.—p. 693.
Primary Amyloidosis: Report of Three Cases. J. A. Dillon and L. R. Evans, Boston.—p. 722.

Treatment of Addison's Disease.—Engel and his associates have now treated 8 patients with Addison's disease by implanting pellets of desoxycorticosterone acetate. A few of them have now been so treated for more than two and a half years. Three of the 8 patients are women and 5 are men; their ages vary from 21 to 57 years. A tuberculous etiology is definite in 3 and probable in 3 others. If proper precautions are taken, excellent results may be achieved. Not only are the abnormalities in electrolyte balance and blood pressure regulation completely alleviated, but a striking improvement in the strength and well being of the patient ensues. Failure to obtain improvement is usually attributable to insufficient dosage or overdosage of the drug or to the fact that the patient's symptoms are due predominantly to disturbances in carbohydrate metabolism. The authors believe that it is best to implant fewer pellets than the required number and to supplement the treatment with some additional salt by mouth daily. In this way the dangers of unfortunate complications are lessened. By the sublingual route larger doses of the drug are needed for effectiveness than by the intramuscular route. As the drug probably is rapidly absorbed into the blood stream when it is administered sublingually it should be given in small, frequent doses to produce an even effect. The ideal method is to provide a slow, steady release of hormone all day, a result which is best achieved by pellet implantation. To obtain satisfactory results by pellet implantation a prolonged period of observation on treatment by the intramuscular route is necessary before implantation is carried out. During the first few months of treatment with the synthetic hormone a gradual decrease in requirement occurs. If implantation is done before the minimal requirement has been determined, what was an adequate dose at the time of implantation will prove to be a toxic one several months later. When the smallest maintenance dose has been determined, the number of pellets to implant is calculated on the basis that each pellet yields daily approximately 0.3 mg. of the hormone. The requirement by pellet is about 60 per cent of that required by the intramuscular route. Pellets of approximately 125 mg. in size should last about eleven months. Toxic reactions can usually be avoided by extreme caution in the dose used.

Use of Cold in Medicine.—Smith reviews the many uses which cold has found in medical therapy. He states that in spite of centuries of almost subconscious recognition of the usefulness of cold in the treatment of pain and fever, perhaps because of its very simplicity, its more extended use has only just begun. Its use has pointed the way toward a new era for the diabetic patient and for military and civilian traumatic injuries of the extremities. The work of Talbott with generalized hypothermia in schizophrenia likewise opens the entire field of the central nervous disorders to similar investigation. In malignant disease, evidence has conclusively shown the value of hypothermy in both its localized and its generalized application as an adjunct to other methods of treatment, and especially in the terminal stage of the disease. Its value in the control of pain is often truly phenomenal and for this reason alone the method should be employed widely in a variety of painful diseases. Its use in the treatment of narcotism and local control of infection appears proved. Perhaps as knowledge grows it may be possible to reach safely the "critical" levels of tumor cell growth that tissue cultures suggest may be destructive to cancerous cells and thus add a truly effective weapon to the eradication of malignant disease. Like any other major therapeutic procedure it is not without certain dangers, which must be recognized and methods designed to counteract them; therefore during its experimental stage it is best that its application be limited to institutions that are staffed and equipped to handle them properly.

Detection of Subclinical Scurvy.—Rinehart and Greenberg have tried to determine the degree of tissue depletion existing in adults with low plasma ascorbic acid values and whether or not this depletion has deleteriously affected the health of the persons involved. Thus, of 34 adults with fasting plasma ascorbic acid values from 0.0 to 0.1 mg. per hundred cubic centimeters, 15 showed flat curves representing an average deficit of 2.16 Gm. The remaining 6 exhibited high curves. With few exceptions, adults with initial blood plasma values above 0.3 mg. were near saturation and excreted from 50 to 300 mg. of the ingested test dose of ascorbic acid. As in most subclinical deficiency states the effect on the general health and well-being of the patient following correction of the deficiency is perhaps the clearest evidence that deficiency existed. Twenty-three of 27 persons with an initial plasma vitamin C concentration below 0.1 mg. showed improvement after their vitamin C deficiency was corrected. Approximately 80 per cent of the adults in the series in whom the initial fasting blood plasma ascorbic acid was below 0.1 mg. were suffering from a subclinical form of vitamin C deficiency, though none presented a clinical picture that could be called scurvy. Vitamin C deficiency of the type described is frequently encountered, as of 239 "normals" consisting of students, nurses, house officers and laboratory workers 4.6 per cent showed fasting blood plasma levels below 0.1 mg. and 16 per cent below 0.3 mg. per hundred cubic centimeters. Determination of the fasting plasma ascorbic acid is the simplest and most direct exploratory objective method in detecting subclinical vitamin C deficiency or scurvy. Other less diagnostic but objective criteria are lowered capillary strength, mild reticulocyte responses following the administration of vitamin C, general symptoms of malaise, gingivitis, gingivostomatitis and unexplained bleeding. Unpublished observations indicate that vitamin C deficiency or subclinical scurvy of the type described is commonly encountered in medical practice.

Pneumococcic Meningitis.—The cases of pneumococcic meningitis treated at the Cincinnati General Hospital from 1936 through 1941 form the basis for Ruegsegger's discussion. There is no record at the hospital of the recovery of a patient from the disease prior to 1937. Successful treatment depends, in the main, on prompt and vigorous sulfonamide therapy, intravenous injection of specific concentrated serum and the drainage of accessible foci of pneumococcic pus. The case mortality rate of pneumococcic meningitis has been lowered all over the world. It is hazardous to be more specific, as reports of recoveries are much more likely to be published than are the failures. This saving of lives affects all age groups, and especially those between 1 and 20. The prognosis in infancy remains grave. The improved method of treatment has no predilection for a certain type of pneumococcus, and there is no evidence that any

certain type is especially resistant to this therapy. In fact, the percentile increase of cures of type III pneumococcic meningitis is striking in view of the mortality of type III pneumococcic pneumonia. Meningitis secondary to infections within the head or injuries to the head has been more amenable than that secondary to pneumonia. Neal, Applebaum and Jackson, in an analysis of their own 30 cases, concluded that bacteremia had no particular bearing on the outcome of the disease. The author's analysis of 637 cases collected from the literature compels him to the opposite conclusion. Of the 296 patients that recovered, the cultures of only 31 were positive, those of 57 were negative and of the remainder either cultures were not done or they were not reported. Of the 341 patients who died 74 had bacteremia, the blood cultures of 33 were negative and cultures of the blood of the remainder were not taken.

Archives of Dermatology and Syphilology, Chicago

46:469-618 (Oct.) 1942

Epidermodysplasia Verruciformis (Lewandowsky and Lutz): Report of Two Cases. O. G. Costa and M. A. Junqueira, Belo-Horizonte, Brazil.—p. 469.
Familial Occurrence of Acrodermatitis Atrophicans Chronica: Report of Two Cases. W. Director, New York, and S. M. Bluefarb, Chicago.—p. 480.
Hemorrhagic Syphilis. F. Kalz, Montreal, Canada.—p. 483.
Spiegler-Fendt Sarcoid. H. Charache, Brooklyn.—p. 489.
Superfluous Hair: Removal with Monopolar Diathermy Needle. Marthe Erdos-Brown, Chicago.—p. 496.
Erythema of Palms Associated with Pregnancy. R. C. Lofgren, Philadelphia.—p. 502.
*Cerebral Lesions Following Administration of Neoarsphenamine: Multiple Symmetric Foci of Hemorrhagic Necrosis of Brain. C. B. Courville and C. Marsh, Los Angeles.—p. 512.
Standard Nomenclature of Disease. H. Fox, New York.—p. 534.
Dermatitis Striata Pratensis Bullosa (Grass or Meadow Dermatitis). M. Oppenheim. Chicago.—p. 541.

Cerebral Lesions After Neoarsphenamine Therapy.—Courville and Marsh discuss the significance of associated symmetrical foci of hemorrhagic necrosis in postarsphenamine hemorrhagic encephalitis. This lesion has heretofore not been studied. From a review of the reported cases of hemorrhagic encephalitis in which larger foci of hemorrhagic necrosis are mentioned and of the cases that they have encountered, it is clear that, in addition to widely scattered "flea bite" hemorrhages which occur in the brain, areas of hemorrhagic necrosis may be found associated with smaller discrete hemorrhages or occurring as separate and distinct lesions. The clinical factors in the two types of cases appear similar, with the same tendency to occur in young women within a few days of an ordinary therapeutic dose of neoarsphenamine. The chief difference was the greater tendency for the occurrence of focal neurologic signs in the cases with the larger symmetrical foci of necrosis, particularly in the form of motor phenomena. In the 12 cases of cerebral lesions following neoarsphenamine (or some allied arsenical) therapy that were available for study four general types of lesions were evident: (1) petechial hemorrhages scattered generally throughout the white matter of the brain, typical hemorrhagic encephalitis, (2) gross cerebral hemorrhage, (3) multiple and usually symmetrical foci of red softening involving both the gray and the white matter of the brain and (4) a combination of any two (or possibly three) of these lesions. Among the 12 cases there were 4 of multiple petechial hemorrhage, 1 of gross cerebral hemorrhage, 6 of multiple symmetrical foci of red softening and 1 of both disseminated hemorrhage and symmetrical foci of red softening. If these few cases are typical, then the lesion of multiple foci of red softening is the most common one after arsphenamine intoxication and the real nature of some of these lesions must have been misunderstood. The tendency of the lesion to occur in symmetrical areas of the brain suggests a vascular basis; perhaps the focal blood vessels supplying these areas are susceptible to the toxic agent to the same degree at the same time. If Ehrlich's original premise about lack of epinephrine is correct, then it can be assumed that these vessels are most sensitive to the toxic process during episodes of vasodilatation. As is true of disseminated petechial hemorrhages, this lesion is not necessarily fatal. There was a case with a rather long survival period, although serious clinical residuals are likely if the lesions are at all widespread or severe. Localizing or lateralizing clinical phenomena should suggest this particular lesion.

Archives of Internal Medicine, Chicago

70:513-688 (Oct.) 1942

*Etiology of Atypical ("Virus") Pneumonias: Brief Résumé of Recent Discoveries. H. A. Reimann, W. P. Havens and A. H. Price, Philadelphia.—p. 513.
*Observed Course of Diabetes Mellitus and Inferences Concerning Its Origin and Progress. A. R. Colwell, Evanston, Ill.—p. 523.
Cinchophen Gastric Ulcers in Chicks. G. Cheney, San Francisco.—p. 532.
Treatment of Pneumonia with Sulfathiazole. A. E. Price and G. B. Myers, Detroit.—p. 558.
Mechanism of Pentothal Sodium Antidiuresis. H. Silvette, Charlottesville, Va.—p. 567.
Gastroenterology: Review of Literature from July 1941 to July 1942. C. M. Jones, Boston.—p. 585.

Atypical Pneumonias.—Indirect evidence of infection with psittacosis virus or the related viruses of a psittacosis-like disease (ornithosis), meningopneumonitis and venereal lymphogranuloma, obtained by complement fixation tests in 4 of 8 cases of a condition regarded as "virus" pneumonia, is presented by Reimann and his associates. Serum in 1 of the cases gave strong protection against the virus of lymphocytic choriomeningitis. Therefore, any one of these viruses may be the cause of a form of virus pneumonia, which term is established to include a syndrome or a group of entities which may be clinically indistinguishable yet may be caused by a variety of known filtrable viruses. Clinically similar pulmonary infection caused by known agents other than filtrable viruses, and agents not yet determined may at present best be termed primary atypical pneumonia, etiology unknown.

Diabetes Mellitus.—The relation between the amount of insulin needed and the duration of the existing diabetes at various ages was determined by Colwell in 166 patients who were treated under uniform conditions. The ages of the patients ranged from 6 to 82 years. No acute complication was present in any patient at the time of study. Some chronic complications existed, especially among the older patients. The age at onset varied between 2 and 77 years. From the data obtained the author infers that diabetes is inherent and begins at birth. Before it is recognized clinically its extensive progress is fully as great as it is after the disease is recognized. The rate of the progress is indicated by the age at which it is recognized: the earlier it appears, the more rapidly it progresses. It is probably more nearly correct to say that the more rapidly it progresses through its unrecognized stage the earlier in life it appears. During the first few years after its recognition the diabetes tends to improve temporarily, probably as a result of treatment. This improvement does not affect its subsequent course. After ten years of known existence, progressive and permanent improvement may be evinced. In aged persons with diabetes, probably because of chronic complications, the foregoing premises are often violated.

California and Western Medicine, San Francisco

57:169-226 (Sept.) 1942

Clinical-Pathologic Conference. W. M. Yater, Washington, D. C., and E. Hall, Los Angeles.—p. 176.
Primary Papillary Carcinoma of Ureter: Report of Case. A. J. Scholl and V. J. Gallagher, Los Angeles.—p. 180.
Thyroid Disease: Experiences and Conclusions of a Thyroid Committee. H. H. Searls, San Francisco.—p. 184.
Heart Under Cyclopropane. C. H. Thienes and P. O. Greeley, Los Angeles.—p. 188.
Salivary Glands: Pathologic Conditions Affecting Them. S. A. Morris, Marysville.—p. 190.
Varicose Veins: Suggested Operative Procedure. R. S. Sherman, San Francisco.—p. 192.
*Typhus Fever in California. W. L. Halverson, Los Angeles.—p. 196.

Typhus Fever in California.—Halverson points out that typhus fever of the endemic or flea borne type is prevalent in the southeastern part of the United States and occurs in California; 2,780 cases were reported in 1941. Among the 229 cases reported from California since 1916 there have been five deaths. Typhus is spread widely over the world, and in Europe epidemic or louse borne typhus is increasing. The disease presents a grave potential danger because of military and industrial concentration of men and workers. Prevention by vaccination is in the trial stage. In 24 of the 37 patients observed at the Los Angeles County Hospital the onset was abrupt; 32 reported chills at the onset. In 15 this symptom was present

for the first four or five days of the illness. The temperature ranged from 101 to 105.6 F. with an average of 103.5 F. Every patient except 1 complained of headache as a prominent symptom and 22 had generalized aching, usually of the large muscles. Backache was present in 15. The rash is usually seen on the fifth day of illness. Usually the leukocyte count is not elevated in endemic typhus. In this country the most common disease with which typhus can be confused after the rash appears is Rocky Mountain spotted fever. Both diseases are caused by rickettsia, the prodromal symptoms are similar, and in both a rash occurs several days after the onset. Measles may be confusing if photophobia occurs as a prodromal symptom. The preeruptive stage is similar to early influenza. In the tropics, malaria must be differentiated.

Canadian Medical Association Journal, Montreal

47: 293-394 (Oct.) 1942

Osler's Influence in War Against Tuberculosis. C. H. Parfitt, Toronto. —p. 293.
Where We Fail in Diagnosis and Treatment of Heart Disease. J. A. Oille, Toronto.—p. 305.
Electric Shock Therapy of Psychosis. G. E. Reed, Montreal.—p. 311.
Some Observations on Ear, Nose and Throat Disabilities Associated with Aviation. R. S. Pentecost, Toronto.—p. 314.
Medical Aspects of Aircrew Selection. F. A. L. Mathewson, Ottawa, Ont.—p. 318.
Inspection and Treatment of Soldiers' Feet. O. Rostrup, Edmonton, Alta.—p. 323.
Metrazol Complications as Affected by Use of Curare. J. A. Cummins, Hamilton, Ont.—p. 326.
Interatrial Septal Defect: Report of Case. S. T. Laufer, Halifax, N. S.—p. 330.
Internal Biliary Fistulas. W. B. Taylor, Camp Borden Military Hospital.—p. 332.
*Nonhypoglycemic (Allergic) Insulin Reactions. E. M. Watson, London, Ont.—p. 336.
*Silent Bronchopneumonia. P. M. Andrus, London, Ont.—p. 339.
Modern Ointment Bases. M. V. H. Prinz and L. P. Ereaux, Montreal. —p. 344.
Association of Deficiency of Vitamins B_1 and E During Pregnancy. E. Shute, London, Ont.—p. 350.
Pernicious Anemia Due to Deficiency of Extrinsic Factor. S. T. Townsend and F. B. Begor, Montreal.—p. 352.
Treatment Centers in Control of Syphilis. F. Kalz, Montreal.—p. 355.

Nonhypoglycemic Insulin Reactions.—Watson states that the incidence of allergic or nonhypoglycemic reactions (localized or generalized cutaneous manifestations) to insulin has been reported by different observers as 1 to 30 per cent. So-called insulin allergy has developed in approximately 5 per cent of the author's insulin treated diabetic patients. Anaphylactoid reactions to insulin fortunately are rare. Apparently a state of hypersensitiveness to insulin in a diabetic patient usually does not modify the influence the hormone has on the blood sugar. A few instances of insulin hypersensitiveness have been reported to be related to a condition of insulin resistance. Apart from the occasional association of insulin allergy and the biochemical unresponsiveness to insulin therapy, no fatalities have occurred as a direct result of anaphylaxis. Nevertheless, any suggestion that a patient may be sensitive to insulin should not be disregarded; rather the indication is to proceed with caution, especially when insulin therapy is to be resumed after treatment is interrupted. Interruption of treatment may aid the diabetic patient to desensitize himself, or difficulties may be overcome by the discontinuance if the therapy is not essential for the treatment of the patient. Some benefit may be derived from reducing the dose or the number of injections, or by changing to a more concentrated insulin. However, a change to an insulin of a different biologic source is not helpful, except in rare instances, as the sensitizing agent rests in the molecular structure of the insulin itself. When the adequate treatment of a patient depends on insulin, a program of artificial desensitization must be considered. Desensitization is not always successful.

Silent Bronchopneumonia.—Since roentgenography has become a routine in the Canadian forces, Andrus states that 96 cases of acute pulmonary exudation have been encountered in his military district. These cases would presumably have escaped detection if it had not been for the "accident" of roentgen examination resulting from war conditions. The cases may be termed silent, concealed or undiagnosed bronchopneumonia. That the pneumonia-like lesions were exudative and inflammatory in character rather than sterile regional atelectasis, as might otherwise be suspected, was indicated by the fact that the erythrocyte sedimentation rate in all the cases examined was well elevated while the shadow existed. The cases have been called "silent" because conspicuous toxemia, blood spitting, chills and/or crepitant rales were absent. Silent bronchopneumonia has been regarded as probably the result of a low virulence of the causative organism. However, serial roentgenography during clinical manifest bronchopneumonia reveals another possibility. Roentgenograms at the stage of apparent clinical cure showed that the greater part of the pneumonic deposit was still present. In the subsequent ten to twenty days the exudate disappeared. Presuming that the febrile stage represents the development of immunity to the micro-organisms concerned the disappearance of the exudate and the dissipation of atelectasis may, in fact usually does, substantially postdate the establishment of specific immunity. This alternate hypothesis provides an explanation for "silent" bronchopneumonia. So-called silent bronchopneumonia is probably merely an instance in which the diagnosis was accidently first made in the post-toxic stage of bronchopneumonia but before resolution of exudate was completed. Therefore, in the absence of roentgenography, it is safest to regard and manage all manifestations of intercurrent respiratory disease as possible cases of bronchopneumonia. Most of the 96 recruits admitted an antecedent respiratory infection.

Cancer Research, Baltimore

2:669-738 (Oct.) 1942

Participation of Anterior Chamber of Eye in Resistance Phenomena Related to Tumor Growth. H. S. N. Greene, New Haven, Conn. —p. 669.
Mechanism of Tumor Immunity as Investigated by Means of Intraocular Inoculation of Brown-Pearce Carcinoma. F. S. Cheever and H. R. Morgan, Boston.—p. 675.
Investigation into Possible Carcinogenic Activity of Wood Smoke. F. Dickens and H. Weil-Malherbe, Newcastle-upon-Tyne, England. —p. 680.
Incidence of Primary Lung Tumors in Mice with Induced Sarcomas. C. E. Dunlap and S. Warren, Boston.—p. 685.
Inhibition of Sulfhydryl-Containing Enzymes by Split Products of *p*-Dimethylaminoazobenzene. V. R. Potter, Madison, Wis.—p. 688.
Effect of Riboflavin on Liver Changes Produced in Rats by *p*-Dimethylaminoazobenzene. W. Antopol and K. Unna, Newark, N. J.—p. 694.
Effect of Vitamin B_1 Deprivation on Appearance, Growth Rate and Course of Jensen Rat Sarcoma. J. L. Jones, Columbus, Mo.—p. 697.
Three Carcinomas of Tongue in Two Monkeys. P. E. Steiner, H. Klüver and A. Brunschwig, Chicago.—p. 704.
Possible Relationship of Estrogenic Hormones, Genetic Susceptibility and Milk Influence in Production of Mammary Cancer in Mice. J. J. Bittner, Bar Harbor, Maine.—p. 710.

Delaware State Medical Journal, Wilmington

14:193-206 (Sept.) 1942

Studies in Measles. J. Stokes Jr., M. Shaffer, G. Rake, G. O'Neil and Elizabeth P. Maris, Philadelphia.—p. 193.
Rh Factors in Obstetrics. J. S. Keyser and I. Slovin, Wilmington. —p. 196.

Florida Medical Association Journal, Jacksonville

29:105-152 (Sept.) 1942

Bed Rest in Coronary Thrombosis. J. A. Bradley, St. Petersburg. —p. 117.
Relation of Vitamin B Complex to Human Pathology. T. M. Rivers, Kissimmee.—p. 123.
Use of Vitamin B in Treatment of Toxemias of Late Pregnancy. B. F. Hart, Winter Park.—p. 128.
Use of Miller-Abbott Tube in Management of Ileus. D. R. Murphey, Tampa.—p. 130.
Provisions for Public Health in the Floridas Under the Administration of Governor Andrew Jackson in 1821. D. C. McMurtrie, Evanston, Ill.—p. 133.

Indiana State Medical Assn. Journal, Indianapolis

35:549-602 (Oct.) 1942

Etiology and Surgical Treatment of Gastroduodenal Ulcer. L. R. Dragstedt, Chicago.—p. 552.
Lobelias in Medicine. H. R. Hulpieu, Indianapolis.—p. 556.
Infectious Mononucleosis. H. H. Ash and J. L. Arbogast, Lafayette. —p. 562.
Caudal Block Anesthesia in Obstetrics. S. A. Manalan, Indianapolis. —p. 564.
Multiple Subcortical Clots with Cerebral Melanomas. R. M. Klemme and R. D. Woolsey, St. Louis.—p. 566.

Journal of Immunology, Baltimore

45:1-78 (Sept.) 1942

Factors Influencing Rate of Neutralization of Bacteriophage by Antibody. G. M. Kalmanson, A. D. Hershey and J. Bronfenbrenner, St. Louis.—p. 1.

Evidence of Serologic Heterogeneity of Polyvalent "Pure Line" Bacteriophage. G. M. Kalmanson and J. Bronfenbrenner, St. Louis.—p. 13.

Antigenic Structure of Hemolytic Streptococci of Lancefield Group A: XI. Relationships of Nucleoproteins of Some Species of Streptococci and Pneumococci. S. Mudd and Maria Wiener, Philadelphia.—p. 21.

Id.: XII. Antigenicity of Type Specific M Protein. Maria Wiener, C. A. Zittle and S. Mudd, Philadelphia.—p. 29.

Specific Precipitation: IV. Quantitative Application of Restricted Theory. A. D. Hershey, St. Louis.—p. 39.

Fixation of Components of Complement and Combining Nitrogen from Guinea Pig Serum. L. Pillemer, F. Chu, S. Seifter and E. E. Ecker, Cleveland.—p. 51.

Site of Formation of Diphtherial Toxin. H. E. Morton and L. M. Gonzalez, Philadelphia.—p. 63.

Effect of Amount of Antigen on Antitoxin Formation During Primary and Secondary Immunizations. J. Freund and Mary V. Bonanto, Otisville, N. Y.—p. 71.

Journal Industrial Hygiene & Toxicology, Baltimore

24:213-242 (Oct.) 1942

Experiments on Carbon Monoxide Poisoning in Tents and Snow Houses. L. Irving, P. F. Scholander and G. A. Edwards, Swarthmore, Pa.—p. 213.

Simple Microgasometric Method of Estimating Carbon Monoxide in Blood. P. F. Scholander, Swarthmore, Pa., and F. J. W. Roughton, Boston.—p. 218.

Effect of Inhalation of Hydrogen Chloride. W. Machle, K. V. Kitzmiller, E. W. Scott and J. F. Treon, Cincinnati.—p. 222.

Metabolism of Mononitroparaffins: II. Metabolic Products of Nitroethane. E. W. Scott, Cincinnati.—p. 226.

Determination of Atmospheric Contaminants: II. Methyl Cellosolve. H. B. Elkins, E. D. Storlazzi and J. W. Hammond, Boston.—p. 229.

Maximal Allowable Concentrations: I. Carbon Tetrachloride. H. B. Elkins, Boston.—p. 233.

Storage of Radium Dial Instruments. C. R. Williams, Boston, and R. D. Evans.—p. 236.

*Is Acute Lobar Pneumonia a Complication of Silicosis? D. C. Pierpont, Ironwood, Mich.—p. 238.

Is Pneumonia a Complication of Silicosis?—In an attempt to answer this question Pierpont consulted the health departments of the states of Michigan and Wisconsin as to the incidence and mortality rate of acute lobar pneumonia in the counties in which iron mining is the chief industry. The data from the mortality statistics received show that the mortality rate from acute lobar pneumonia is less in the counties where iron ore mining is the chief industry than it is in the states as a whole. On the Gogebic Range, in Gogebic County, Mich., and Iron County, Wis., the mortality rate is practically the same for underground workers as it is for other males of the same age who work on the surface. Men with silicosis get pneumonia just as do men of the same age without silicosis. Acute lobar pneumonia is an infectious and not an industrial disease.

Minnesota Medicine, St. Paul

25:761-840 (Oct.) 1942

Present Status of Hemorrhagic Diseases. A. J. Quick, Milwaukee.—p. 775.

Ménière's Disease. J. R. Lindsay, Chicago.—p. 778.

*Controlled Administration of Fluid to Surgical Patients, Including Description of Gravimetric Methods of Determining Status of Hydration and Blood Loss During Operation. O. H. Wangensteen, Minneapolis.—p. 783.

Clinical Aspects of Branchial Fistulas: Case Report of Bilateral Complete Branchial Fistulas. E. R. Anderson, Minneapolis.—p. 789.

Evaluation of Recent Data on Boiled Liver Extract Method of Treating Acne Vulgaris. W. Marshall, Appleton, Wis.—p. 796.

Ocular Manifestations of Some Constitutional Disturbances. G. L. Loomis, Winona.—p. 797.

Administration of Fluid to Surgical Patients.—Wangensteen discusses the four essential problems which have a bearing on the fluid requirements of patients undergoing operation: (1) water requirement, (2) electrolyte needs, (3) blood loss factor and (4) the maintenance of the caloric and nitrogen balance. By proper attention to the administration of fluid to surgical patients, many operations may be extended to the poor risk patient without increasing the operative risk materially. Surgeons should interest themselves more in precise means of determining whether these needs of the patient have been satisfied. Weighing the patient preoperatively and postoperatively is the most precise method of determining the status of hydration. Similarly, the employment of weighed dry sponges during operation permits an accurate estimation of the blood loss by weighing the used sponges. If by fluids the preoperative weight has been exceeded and enough fluid has been given so that a satisfactory urinary output reasonably could be expected and oliguria continues, there is no need to give more fluid. The continued administration of fluid to such a patient will cause cardiac failure, pulmonary edema and death. Weight increases of 4 to 5 per cent over the patient's preoperative weight speak significantly for overhydration of the patient. As to the kind of fluid to be given, the author has followed the suggestions of Gamble, employing solutions of salt and dextrose to replace decreases in extracellular fluid and electrolyte disturbances, with complete satisfaction. Large blood losses are preferably replaced by blood. When multiple transfusions become necessary, the suggestions of DeGowin, providing an alkaline urine by the intravenous administration of sodium bicarbonate solution (250 cc. of a 5 per cent solution), should be followed. DeGowin contends that albumin casts are less likely to form, attending hemolytic reactions, if the urine is alkaline.

New England Journal of Medicine, Boston

227:499-532 (Oct. 1) 1942

Cesarean Section in Massachusetts in 1941. R. L. DeNormandie, Boston.—p. 499.

Carcinoma of Bronchus. G. W. Holmes, Boston.—p. 503.

Place of Gastroduodenostomy in Surgery of Duodenal Ulcer. H. M. Clute and J. S. Sprague, Boston.—p. 508.

Carcinoma of Prostate. W. C. Quinby, Boston.—p. 512.

227:533-574 (Oct. 8) 1942

Five Year Study of Cesarean Sections in Massachusetts. R. L. DeNormandie, Boston.—p. 533.

*Trauma of Skin Due to Wartime Activities. J. G. Downing, Boston.—p. 539.

Retention of Rubber Tube in Biliary Tract: Report of Case. P. A. Consales, Boston.—p. 545.

Clinical Application of Gastroscopy. C. W. McClure and I. R. Jankelson, Boston.—p. 548.

Stilbestrol. J. Rock and Miriam F. Menkin, Boston.—p. 552.

Trauma of Skin.—Downing states that the recognition and elimination of an industrial dermatitis, such as may occur in the manufacture of clothing, explosives and food, may often prevent similar occurrences in soldiers who in turn come in contact with the articles. No new substances or processes should be introduced and the resulting article put on the market until their possible effects on the workers have been thoroughly investigated. In military life the possibilities for cutaneous diseases are similar to those of industrial and civilian life, varying from sensitivity to clothing and bakers' eczema from cinnamon or the persulfates to burns from explosives and gases and infections regarded in civil life as trivial and belonging to the unwashed. A knowledge of dermatology, always important in civilian life, is most essential in industrial and military organizations.

New York State Journal of Medicine, New York

42:1791-1886 (Oct. 1) 1942

Tendon and Nerve Injuries. S. L. Koch, Chicago.—p. 1819.

Fractures of Hand: Metacarpal Bones and Phalanges. R. K. Brown, Buffalo, and J. M. Dziob, Lackawanna.—p. 1824.

Vitamin Deficiencies in Diabetic Children. J. M. Freston and Winifred C. Loughlin, New York.—p. 1833.

Development of Anesthesiology. E. A. Rovenstine, New York.—p. 1838.

Tangent Screen Scotometry in Office Practice. W. F. Duggan, Utica.—p. 1842.

Exophthalmos Associated with Thyroid Disease. A. B. Reese, New York.—p. 1848.

Surgery of Ovary: Small Ovarian Cysts. N. F. Miller and J. R. Willson, Ann Arbor, Mich.—p. 1851.

Oklahoma State Medical Assn. Jour., Oklahoma City

35:365-410 (Sept.) 1942

Complications Following Use of Sodium Diphenylhydantoinate (Dilantin) Therapy. T. H. Harris and J. R. Ewalt, Galveston, Texas.—p. 365

Typhoid Fever. J. Y. Battenfield, Oklahoma City.—p. 371.

Eczema: Modern Concepts of Treatment. H. Green, Tulsa.—p. 375.

Urolithiasis. J. W. Rogers, Tulsa.—p. 379.

Physiological Reviews, Baltimore

22:291-384 (Oct.) 1942

Application of Labeling Agents to Study of Phospholipid Metabolism. I. L. Chaikoff, Berkeley, Calif.—p. 291.
Functional Repair of Nervous Tissue. J. Z. Young, Oxford, England. —p. 318.
Extramedullary Blood Production. H. E. Jordan, Charlottesville, Va. —p. 375.

Public Health Reports, Washington, D. C.

57:1439-1478 (Sept. 25) 1942

Frequency and Volume of Hospital Care for Specific Diseases in Relation to All Illnesses Among 9,000 Families, Based on Nationwide Periodic Canvasses, 1928-1931. S. D. Collins.—p. 1439.

Rocky Mountain Medical Journal, Denver

39:661-732 (Oct.) 1942

Convalescent Human Serum Therapy. C. M. Hyland, Los Angeles. —p. 679.
Current Social Experiments in Medicine. R. G. Leland, Chicago.—p. 683.
Androgen Inhibition in Treatment of Carcinoma of Prostate. H. T. Low and H. E. Coakley, Pueblo, Colo.—p. 687.
The 29th General Hospital, Medical Corps, Army of the United States. —p. 689.

Southern Surgeon, Atlanta, Ga.

11:685-752 (Oct.) 1942

Carcinoma of Thyroid. J. G. Gay, Atlanta, Ga.—p. 685.
*Cod Liver Oil Therapy of Wounds and Burns. P. C. Hardin, Monroe, N. C.—p. 691.
Unilateral Ectopic Kidney: Report of Four Cases. P. C. Gamble, Greenville, Miss.—p. 731.
Arachnidism: Case Report of Arachnidism with Death and Autopsy Finding. B. T. Beasley, Atlanta, Ga.—p. 737.

Cod Liver Oil Therapy of Wounds and Burns.—Hardin used cod liver oil for the treatment of 346 various types of wounds and burns. Healing was more rapid than that following other methods. Cod liver oil is so effective in cleaning up infected wounds and stimulating healing that it replaces diluted solution of sodium hypochlorite. It is an effective method for treating the most severe major burns and is superior in certain respects to other methods of local therapy, especially in third degree burns in which cod liver oil reduces infection, forms no adherent coagulum, destroys no epithelial elements and minimizes skin grafting. Commercial ointments were superior to home made preparations, in which odor, the only real disadvantage of the therapy, is disagreeable.

Southwestern Medicine, Phoenix, Ariz.

26:287-324 (Sept.) 1942

Problems of New Mexico Medicine. W. P. Martin, Clovis, N. M. —p. 288.
Headache and Diseases of Accessory Sinuses. A. J. Ridges, Salt Lake City.—p. 291.
Protecting America's Children. M. K. Wylder, Albuquerque, N. M. —p. 299.
Treatment of Some Common Fractures of Children. L. W. Breck and W. C. Basom, El Paso, Texas.—p. 302.

Texas State Journal of Medicine, Fort Worth

38:363-416 (Oct.) 1942

Some Contraindications of and Untoward Responses to Endocrine Therapy. E. C. Hamblen, Durham, N. C.—p. 367.
Acute Coccidioidomycosis in West Texas. V. E. Schulze, San Angelo. —p. 372.
*Secondary (Granulomatous) Coccidioidomycosis—Coccidioidal Granuloma. G. T. Caldwell, Dallas.—p. 376.
*Coccidioidal Granuloma in Texas: Report of Five Cases with Dermatologic Manifestations. L. M. Smith, El Paso.—p. 383.
Roentgen Ray Findings in Coccidioidomycosis. C. L. Martin, Dallas. —p. 385.
Diagnosis of Placenta Previa by Means of Lateral Soft Tissue Film of Abdomen. P. E. Wigby, Houston.—p. 390.
Newer Methods in Management of Mastoid Disease. O. J. Dixon, Kansas City, Mo.—p. 394.
Eye Problems in Combat Aviation. V. A. Byrnes, Randolph Field. —p. 399.
Retinal Detachment. C. S. Sykes, Galveston.—p. 403.

Secondary Coccidioidomycosis.—Caldwell discusses the 7 cases of coccidiodal granuloma that he has had occasion to study. Three of them were reported in 1932, and the other 4 are reported for the first time. He states that certainly 5 of the 7 patients contracted the disease in Texas. The histories of the other 2 are inadequate to conclude where the infection occurred: in 1 it is probable that the infection was acquired in California, while in the other 1 there are no data concerning place of residence or travel, and none can be secured. In none of the 7 is there any definite evidence that the primary infection occurred in the skin, although in 1 instance ulcers of the legs, which were thought to be varicose ulcers, might possibly have served as the port through which the chlamydospores of Coccidioides immitis entered. However, this seems unlikely. Most of the 7 patients had an initial acute coccidioidomycosis which involved the respiratory passages. If the ratio of acute cases of coccidioidal granuloma is around 300 to 1 or even 700 to 1, an appalling number of them are being overlooked in the various communities from which coccidioidal granuloma is reported.

Coccidioidal Granuloma in Texas.—Smith emphasizes the dermatologic phases of coccidioidal granuloma and reports the 5 cases that he encountered in El Paso. Only 1 of the patients had been out of the state, in California. The cutaneous lesions usually assume one to two forms: chronic draining sinuses originating from subcutaneous abscesses, bone or other underlying involved tissues, and the hypertrophic or verrucous, blastomycosis-like lesions with miliary abscesses. The cauliflower-like tumor masses that Lehmann and Pipkin observed are apparently exaggerated examples of the latter type of lesion. The diagnosis is made by finding the organism in the pus draining from the sinuses or from the miliary abscesses. Intradermal cutaneous tests with a filtrate obtained from a broth culture of Coccidioides immitis are positive in twenty-four to forty-eight hours. This capacity to react is usually retained for years or throughout life. The multiplicity of remedies suggests that there is no dependable specific agent. The 3 of the 5 patients regarded as cured received colloidal iodine intravenously or intramuscularly, and instillations of tincture of iodine into the sinuses. The principal effect appeared to be the sclerosing action of the locally used iodine. When practicable this treatment seems worthy of trial.

Western J. Surg., Obst. & Gynecology, Portland, Ore.

50:483-542 (Oct.) 1942

How Bad Is the American Diet? What Can the Doctor Do About It? A. J. Carlson, Chicago.—p. 483.
Actinomycosis: Report of Two Cases Showing Uncommon Clinical and Pathologic Features. W. Lidbeck, Salem, Ore.—p. 498.
Preliminary Report on Relation of Vitamin C Deficiency to Varicose Veins. W. C. Martin, New York.—p. 508.
Strangulated Hernia Reduced en Masse. N. L. Beebe, Fort Collins, Colo.—p. 510.
Cesarean Section Problems. E. G. Waters, Jersey City, N. J.—p. 512.
Treatment of Pyelonephritis of Pregnancy. D. K. Rose, St. Louis. —p. 518.
Sulfonamides in Obstetrics and Gynecology. P. F. Fletcher, St. Louis. —p. 522.
Further Experiences with Diethylstilbestrol. P. G. Fuerstner, San Francisco.—p. 530.

West Virginia Medical Journal, Charleston

38:363-396 (Oct.) 1942

Diagnosis of Acute Pericarditis. J. P. Helmick, Fairmont.—p. 363.
Clinical Approach to Problem of Bronchial Asthma. J. R. Kaufman, Charleston.—p. 367.
The Heart in Hyperthyroid Disease. S. M. Jacobson, Cumberland, Md. —p. 371.
Narcotics as They Affect the Physician. H. J. Anslinger, Washington, D. C.—p. 373.

38:397-428 (Nov.) 1942

Treatment of Arthritis, Sciatica and Low Back Pain by Intravenous Typhoid Vaccines. H. A. Swart, Charleston.—p. 397.
Multiple Sclerosis. H. C. Davis, Bluefield.—p. 400.
Congenital Atresia of Esophagus: Report of Case. W. H. St. Clair, Bluefield, and A. J. Villani, Welch.—p. 404.
Treatment of Ringworm Infection of Female Genitalia. A. P. Hudgins, Charleston.—p. 406.
Tuberculin Test in Private Practice. G. R. Maxwell, Morgantown. —p. 408.
Early Diagnosis of Tuberculosis. J. P. Helmick, Fairmont.—p. 410.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

British Journal of Experimental Pathology, London

23:151-220 (Aug.) 1942

Examination of O Antigenic Complex of Bacterium Typhosum. W. T. J. Morgan and S. M. Partridge.—p. 151.
Investigation into Production of Bacteriostatic Substances by Fungi: Preliminary Examination of 100 Fungal Species. W. H. Wilkins and G. C. M. Harris.—p. 166.
Antigenicity of Nonprecipitating Complexes. F. C. Bawden and A. Kleczkowski.—p. 169.
Effects of Heat on Serologic Reactions of Antiserums. F. C. Bawden and A. Kleczkowski.—p. 178.
Observations on Motility of Refractile Granules of Human Pus Cells. R. E. H. Simpson.—p. 188.
Incidence of Primary Lung Tumors in Mixed Strain of Mice. J. A. Campbell.—p. 191.
Antibacterial Substance Produced by Penicillium Claviforme. E. Chain, H. W. Florey and M. A. Jennings, with technical assistance of D. Callow.—p. 202.
Observations on Spontaneously Recurring Rous No. 1 Tumors. J. G. Carr.—p. 206.
Interference by One Virus with Growth of Another in Tissue Culture. C. H. Andrewes.—p. 214.

British Medical Journal, London

2:301-328 (Sept. 12) 1942

*Plasma Protein Concentration After Hemorrhage. J. Beattie and H. B. Collard.—p. 301.
*Circulatory Overloading Following Rapid Intravenous Injections. E. P. Sharpey-Schafer and J. Wallace, with technical assistance of A. Latham and A. C. Pincock.—p. 304.
*Sulfonamide Sunlight Eruptions: Clinical Study of Twenty-Seven Cases. R. G. Park and W. M. Platts.—p. 308.
Chronic Leg Ulcer in Purpura Hemorrhagica: Report of Two Cases. L. J. Witts.—p. 309.
Chip Fractures of Os Triquetrum (Carpal Cuneiform). T. J. Fairbank.—p. 310.

Plasma Protein Concentration After Hemorrhage.—Beattie and Collard determined the movement of plasma protein into the blood stream during the first two hours after a known quantity (20 per cent) of blood had been withdrawn from the circulation of cats. After hemorrhage the restoration of blood volume was independent of the restoration of plasma protein. Restoration of both concurrently would imply considerable protein stores. The speed of blood volume restoration in the cat apparently outstrips the rate of plasma protein movement into the blood stream. In man even after large hemorrhages (1,150 cc.) the plasma protein concentration can remain unchanged, although blood dilution is proceeding rapidly. Blood transfusion at varying times after hemorrhage was followed by movement of plasma proteins out of the circulation within one hour of completion of transfusion. Plasma transfusion after hemorrhage was followed by plasma protein movement out of the circulation within one hour of the completion of the transfusion. The rate and amount of plasma protein movement into the circulation were independent of the amount or rate of bleeding, the amount or rate of dilution by fluid from the tissue spaces and the blood pressure changes. The amount of plasma protein contributed to the blood, therefore the plasma protein concentration at any time after hemorrhage (provided no food containing protein was consumed), was probably dependent on the state of the plasma protein stores outside the circulation.

Circulatory Overloading After Rapid Intravenous Injections.—The effect of the rapid intravenous injection of up to 2,000 cc. of saline solution, serum and blood to a few persons on the venous pressure and other cardiovascular measurements are reported by Sharpey-Schafer and Wallace. The injection was given to subjects without cardiovascular disease at rates of 54 to 168 cc. per minute. The venous pressure was raised up to 11 cm. of water, when considerable of the injected fluid was retained in the circulation; this was indicated by the fall in hemoglobin. Roentgenograms showed an increase in the diastolic size of the heart, enlargement of the pulmonary arteries and prominence of the vascular markings in the pulmonary fields. Vital capacity was diminished, but there was no evidence of pulmonary edema. In spite of the rise of venous pressure, many subjects had no increase in heart rate. Of 12 subjects 4 showed electrocardiographic changes of right heart stress. There was a rapid fall of venous pressure to normal on ceasing injection, except in 1 subject given blood. Evidence suggests that the peripheral and pulmonary capillaries and veins dilate to accommodate the increased blood volume. When the blood volume was first reduced by a large venesection, saline solution or serum injected in similar amounts and at similar rates caused little or no rise of venous pressure.

Photosensitivity of Sulfonamides.—The treatment with the sulfonamides of many ambulant and inpatients in an open air tent hospital in the Middle East has provided Park and Platts an opportunity to observe eruptions due to photosensitization. During twelve months 486 patients received sulfanilamide, and eruptions developed in 21 of them; 309 received sulfapyridine, and eruptions developed in 6. The eruptions have been divided into two groups: those limited to parts exposed to the sun during chemotherapy and those which were maximal on exposed parts but also affecting other parts of the body. Sulfanilamide was responsible for 16 of the 17 milder cases. Five each of the more severe cases were caused by sulfanilamide and sulfapyridine. The greater incidence with sulfanilamide may have been due to the fact that only ambulant patients received sulfanilamide. About half of the cases occurred during July and August. Photosensitivity occurred in eight to ten days of administration. Two patients became photosensitive two days after chemotherapy was stopped. It appears that patients given sulfonamides for more than six days are potential victims. That the presence of melanin was a protection against the eruptions is supported by the following facts: About one third of the patients were subjects who sunburn easily, the bronzed parts of the body tended to be affected less often than the other parts and no eruption was seen in Maoris, who comprised about 100 of the patients. The following parts were affected in order of severity: those exposed to the sun during chemotherapy, parts exposed to the sun in the past, pressure points and parts always kept covered. The most common lesions were erythematous papules in a morbilliform or roseoliform pattern which became confluent. Itching varied. Less common lesions were edema, urticaria, vesication, pustulation and desquamation. Drug fever and other toxic effects accompanied 12 cases. Most of the rashes subsided in two to four days. By avoiding further exposure to sunlight, 6 patients completed their courses of chemotherapy and 3 had further courses later without ill effects. In the milder cases a rash was no indication for discontinuing chemotherapy.

2:329-356 (Sept. 19) 1942

*Estimation of Hemoglobin by Alkaline Hematin Method. J. W. Clegg and E. J. King.—p. 329.
Louse Borne Typhus Fever. C. Donald and P. B. Barker.—p. 333.
Management of Rheumatic Disease in the Forces. O. Savage.—p. 336.
Psychogenic Illness in Regimental Practice. W. L. Jones.—p. 338
Dysentery and Diarrhea in Wartime. P. H. Manson-Bahr.—p. 346.

Estimation of Hemoglobin.—Clegg and King believe that the following criteria are required for a satisfactory method of estimating hemoglobin: The method must measure total pigment with a reasonable degree of accuracy and yet be simple enough to be employed in a laboratory in which many determinations are performed daily. The measurement must be in simple standards, and nontoxic reagents should be used. The most likely procedure appears to be the alkaline hematin method of Wu. The method eliminates the errors which arise in the acid hematin procedure due to lipids, the colloidal nature of acid hematin and the presence of inactive hemoglobin. The authors tested its reliability by preparing sixteen samples of crystalline hematin from ox and human bloods and determined the iron content of each. They found the specific extinction coefficients to agree closely, the intensity of color was proportional to the concentration of hemin iron and impurities failed to influence the color. Several forms of hemoglobin occurred in normal blood, some of which were resistant to alkali denaturation. Whatever the proportion of alkali resistant hemoglobin in a sample, a 1 in 100 dilution in decinormal soda placed in a boiling water bath for five minutes will convert all the hemoglobin into alkaline hematin. Similar treatment converts all inactive hemoglobin into alkaline hematin. The color is not significantly influenced by the amount of lipid or plasma present in the sample. Determinations of hemoglobin in blood samples based on the assumption that 1 mg. of hemin iron in the standard

was equivalent to 1 mg. of hemoglobin iron in the test yielded results uniformly about 30 per cent higher than determinations based on the oxygen carrying power of the same sample. Solutions prepared from hemin and blood gave colors whose absorption curves differed slightly in the red portion of the spectrum.

Edinburgh Medical Journal

49:529-592 (Sept.) 1942

Review of Irradiation Effect on Cells and Tissues of Skin. W. F. Harvey.—p. 529.
Contribution of Emergency Medical Service to Medicine and Surgery in Scotland. A. Davidson.—p. 553.
Pernicious Anemia: Some Vital Considerations. J. P. McGowan.—p. 568.
*Combined Inductopyrexia and Chemotherapy in Treatment of Resistant Gonorrhea. R. C. L. Batchelor, G. M. Thomson and J. L. Huggan.—p. 584.

Combined Inductopyrexia and Chemotherapy for Gonorrhea.—A few cases are reported by Batchelor and his collaborators to illustrate the value of induced pyrexia and chemotherapy for intractable or protracted gonorrhea. Their routine is practically 100 per cent successful. On the day preceding the hyperpyrexia 6 to 8 Gm. of intravenous soluble sulfapyridine is given in divided doses, 2 Gm. in 30 cc. of sterile distilled water. On the morning of treatment 2 Gm. of sulfapyridine is given orally. The minimum hours of fever at a temperature of over 106 F. should be eight. During the fever a further 6 to 8 Gm. of sulfapyridine orally or intravenously may be administered when necessary. Chemotherapy should be continued for five days. Local treatment after the pyrexial therapy is not indicated unless secondary urethral infection is present.

Journal of Endocrinology, London

3:123-234 (Aug.) 1942. **Partial Index**

Effect of Hormones on Degeneration of X-Zone in the Mouse Adrenal. H. Waring.—p. 123.
Ketogenic Activity of Extracts of Anterior Pituitary. C. H. Gray.—p. 132.
Method of Growth of Follicle and Corpus Luteum in Mouse Ovary. W. S. Bullough.—p. 150.
Further Experiments on Lactation in Thyroidectomized Rats: Role of Parathyroids. S. J. Folley, Helen M. Scott Watson and E. C. Amoroso.—p. 178.
Maintenance and Restoration of Growth in Thyroidectomized Rats. I. W. Rowlands.—p. 203.
Administration of Nonsteroid Substances by Implantation Technic. A. S. Parkes.—p. 220.

Journal of Laryngology and Otology, London

57:281-336 (June) 1942

*Otogenic Cerebellar Abscess: Its Operative Treatment and Postoperative Care. N. Asherson.—p. 281.
Otology and Folklore. J. D. Rolleston.—p. 311.

Otogenic Cerebellar Abscess.—Asherson states that, as soon as a cerebellar abscess is diagnosed, exposure and exploration of the cerebellum is indicated. The danger of delay is illustrated by a case that he reports, which draws attention to the little known fact that respiratory paralysis (though usually attributed to an otogenic cerebellar abscess) may result from a large temporal lobe abscess.

Lancet, London

2:299-326 (Sept. 12) 1942

Time of Union in Fractured Tibia. B. H. Burns and R. H. Young.—p. 299.
S-Methylisothiourea Sulfate for Maintaining Blood Pressure in Spinal Anesthesia. F. H. Smirk and M. McGeorge.—p. 301.
*Low Pressure Phase of Blast. A. L. Latner.—p. 303.
Reaction of Blood Lymphocytes to Trauma and Healing. A. H. Cruickshank.—p. 304.
Blood Transfusion Needle. H. F. Green.—p. 306.
Pernicious Anemia and Pituitary Insufficiency. L. J. Witts.—p. 307.
Sulfamethazine: Clinical Trials in Children. P. A. Jennings and W. H. Patterson.—p. 308.
Trichlorethylene Anesthesia. J. Elam.—p. 309.

Low Pressure Phase of Blast.—Latner carried out experiments on mice to determine the effects, if any, of exposure to an exceedingly short duration of low pressure, similar to that occurring with blast. Approximately half of the animals died instantly or within a short period. At necropsy typical intrathoracic and extrathoracic blast lesions were observed. In the treatment of blast injuries of the lung, immobilizing the chest with a bandage might prevent further pulmonary bleeding. It seems possible that the pulmonary lesions of blast are primarily due to overstretching from overinflation of the pulmonary substance during the low pressure phase and at the end of the high pressure phase by the elastic recoil of the thoracic wall. These factors would tend to be additive. For the prevention of blast injuries of the lung, tight inelastic bandages around the chest or a jacket are suggested to prevent overinflation.

2:327-354 (Sept. 19) 1942

*Bronchiectasis Without Disability: Report on Twenty-Five Cases. L. C. Martin and F. R. Berridge.—p. 327.
Complete Rupture of the Membranous Urethra Treated by Anastomosis Without Indwelling Urethral Catheter. A. H. Hunt and C. N. Morgan.—p. 330.
*Pernicious Anemia of Pregnancy: Study of Twenty-Three Cases. H. G. Miller and T. C. Studdert.—p. 332.
Local Application of Sulfanilamide to Peripheral Nerves. W. Holmes and P. B. Medawar.—p. 334.
Inoperable Gastric Cancer: Treatment with Radon Seeds. R. W. Raven.—p. 335.

Bronchiectasis Without Disability.—Martin and Berridge discuss data from 25 examples of bronchiectasis seen during two years in Emergency Medical Service hospitals among serving soldiers. Most of them were graded A 1 in the army; this emphasizes that even extensive bilateral disease can occur among men of healthy appearance and with little incapacity. Many of the cases were detected as a direct result of the war and the facilities it provides, as in peacetime many would not have sought or gained admission to hospitals. Service life may have brought out symptoms which might otherwise have remained dormant for some time. Cough and sputum were the presenting symptoms in 23, dry pleurisy in 1 and evening pyrexia in 1. A history of slight hemoptysis was furnished by 7, mild night sweats by 6 and loss of weight by 4. Although some patients had bilateral bronchiectasis or considerable unilateral saccular disease, none appeared toxic or ill nourished. Physical signs in the chest varied considerably in different patients and in the same patient from time to time. Impairment of percussion note, diminished air entry, persistent coarse or medium rales and scattered rhonchi were commonly found in various combinations, while pleural friction over the affected area of the lung was audible and palpable in 4. The histories and symptoms made a diagnosis of bronchiectasis probable and prompted bronchography. Plain roentgenograms enabled bronchiectasis to be definitely diagnosed in some and suspected or excluded in others. Bronchography was essential for demonstrating the exact extent of the disease, even when recognized in the plain film, and for proving the presence or absence of bronchiectasis in doubtful cases. The oral technic for bronchography was preferred to the nasal or the intratracheal technic. Bronchiectasis, sometimes gross, was fairly common in patients of apparently healthy appearance and little physical incapacity. Such patients are rarely seen in general hospitals in peacetime. Prognosis cannot as yet be discussed, but the expectation of life for patients with bronchiectasis in general may be somewhat pessimistic. Many of the patients gave histories of diseases of the chest in childhood which might have initiated the bronchiectasis, yet the men were still apparently fit enough twenty years later to be graded A 1 in the army and to have had little incapacity in civilian life. Some of the patients might—save for bronchography—have passed through life with no more serious diagnosis than chronic bronchitis.

Pernicious Anemia of Pregnancy.—Miller and Studdert encountered 23 cases of pernicious anemia of pregnancy during the last five years. Only a few were suspected by the outside physician, and many patients were permitted to become dangerously ill before investigation and treatment were instituted. The disease is a macrocytic hyperchromic anemia occurring late in pregnancy or in the puerperium. It differs from pernicious anemia in that hydrochloric acid may be present and in that the prognosis for complete cure is better; subacute combined degeneration does not occur. The 23 women responded to specific therapy, and in 14 it was subsequently discontinued. Dietary deficiency and vomiting were important etiologic factors. Free hydrochloric acid was present in the gastric juice of 18

women; in such cases a preparation of autolyzed yeast added to a good mixed diet may be sufficient treatment. When there is achlorhydria or when the autolyzed yeast fails, either refined or crude liver extract by injection or if even this fails liver by mouth is indicated. Some degree of iron deficiency often becomes apparent during therapy.

Helvetica Medica Acta, Basel

9:1-214 (March) 1942. **Partial Index**

Experiments on Action of Sulfathiazole on Tissues. L. Jeker.—p. 3.
Experimental Revascularization of Kidney. A. Jentzer.—p. 10.
*Fate of Transfused Erythrocytes. H. Willenegger.—p. 15.
*Treatment of Chronic Osteomyelitic Infection of Long Bones by Subperiosteal Resection and Plugging of Bone Defects with Sterilized and Pulverized Resected Bone. C. Henschen.—p. 18.
Surgical Treatment of Spondylolisthesis by Transabdominal Lumbosacral Nailing and Supplementary Ankylosis with Bone Graft. C. Henschen.—p. 25.
Preservation of Omental Circulation in Gastric Resection. E. Fritzsche.—p. 34.
Lymphoma as Cause of Mechanical Jaundice. A. Lehner.—p. 43.
Vertebral Fractures Due to Muscular Traction. P. F. Boesch.—p. 51.

Fate of Transfused Erythrocytes.—The fate of transfused erythrocytes has been determined with the aid of erythrocytes of different blood groups, by means of stained blood or by transfusion of blood from patients with polycythemia to those with severe anemia. The most important methods are those which utilize group specific characteristics. These agglutination methods, according to Willenegger, have the disadvantage that the serologic process of agglutination is not complete. He conceived the idea of utilizing group specific hemolysis rather than agglutination for the demonstration of donor erythrocytes. Hemolysis is a serologic reaction which, in the presence of adequate activity of the hemolysins, is always complete. Voronoff had made this suggestion before him. To secure a serum that contains sufficiently active hemolysins is the main difficulty of the method. Whereas Voronoff employed a rather dangerous method to obtain this end, the author observed that the hemolysin of O blood, which has a high anti A agglutinin titer (1:1,024 or more) is sufficiently active to be used for the experiments. Such O donors are not at all rare. The author transfuses fresh or conserved O blood to a person with A blood. The fate of the donor corpuscles in the recipient's blood is periodically investigated. The gradual decrease in donor erythrocyte values is recorded in curves, which exhibit a fairly regular decline. It was possible to detect donor erythrocytes in the recipient's blood one hundred to one hundred and thirty days. The use of the group specific hemolysins yields much more exact results than do the agglutination methods.

Subperiosteal Resection and Plugging of Bone Defects for Osteomyelitis.—According to Henschen a chronic osteomyelitic focus represents a constant source of danger, and its removal therefore constitutes the basic problem in the treatment of osteomyelitis. He describes a new method which he employed in several cases of fracture osteomyelitis. After the limits of sclerotization have been ascertained, subperiosteal removal of bone is accomplished with a Gigli saw, care being taken not to damage the periosteal coat and the tendinous fibers entering into it or radiating from it. The resected, extremely hard bone is cut up with saw and scissors, is boiled for twenty minutes in a 0.1 per cent solution of salicylic acid and is ground up in a bone mill, or the coarsely fragmented bone is sterilized dry for the same period and is then ground up. The wet or dry bone meal is placed into the subperiosteal space after the space has been irrigated with a 1 per cent solution of hydrogen peroxide and after careful hemostasis. The periosteal coat is then closed with button sutures. The proper length and alinement of the bone is secured by Lane plates or by Judet's screw fixation. In 2 cases in which this method was employed, solid consolidation with proper length and alinement was obtained. There was no formation of fistulas. The sterilized bone meal serves as building material and exerts a stimulus on the osteogenic tissues. The osteogenic stimulus may be intensified by mixing the bone meal with a sterile 33 per cent solution of bone gelatin, thereby forming a paste that forms a true "succus ossificus." The bone meal should not be mixed with iodoform or sulfathiazole, because this would impair the biologic effect.

Schweizerische medizinische Wochenschrift, Basel

72:429-456 (April 18) 1942. **Partial Index**

Rhinopathia Vasomotorica and Related Neurovascular Disturbances of Nose and Accessory Sinuses. E. Lüscher.—p. 432.
*New Treatment for Certain Forms of Pulmonary Tuberculosis. N. Rona.—p. 437.
*Biology of Human Spermatozoa. C. A. Joël.—p. 440.
Cutaneous Hypersensitivity to Local Anesthetics of the Aniline Group. R. Paillard and F. Wyss-Chodat.—p. 442.
New Transfusion Apparatus for Army and Practitioner. R. Bucher.—p. 444.

New Treatment of Pulmonary Tuberculosis.—A case of pulmonary tuberculosis, in which pneumothorax induced an interstitial emphysema and caused shrinkage of a cavity, suggested to Rona that respiration under negative pressure could accomplish a similar result. He effected this type of respiration by means of a suction apparatus with a mouth piece, the nose being closed with a clamp. The apparatus is connected with a water manometer and is equipped with a regulatory device. Cavities communicating with a bronchus may be emptied in this manner. The negative manometer pressure varies between 5 and 8 cm. of water for expiratory and between 9 to 12 cm. for inspiratory pressure. The negative pressure respiration is employed daily for months. The daily treatment is gradually increased up to four two hour periods. The patients become rapidly accustomed to the negative pressure breathing. The author describes 11 cases, in only 1 of which has the method failed. New, thin walled cavities are more responsive to this therapy than old cavities. The method is not effective where extensive areas of lung have been destroyed and where cavities are not surrounded by healthy pulmonary tissue. Apical cavities surrounded on three sides by a rigid wall are likewise unsuitable for this treatment. The treatment may prove helpful also in some nontuberculous pulmonary lesions such as pulmonary abscess, bronchiectasis, certain cases of chronic bronchitis, laryngeal disease, whooping cough and in the after treatment of pleurisy.

Biology of Human Spermatozoa.—Joël points out that opinions regarding viability of human spermatozoa in the vagina differ greatly; some authors estimate it to be from seven to eight days, others from twelve to seventeen days and still others only a few hours. Belonoschkin's studies indicate that the duration of viability is only forty-five minutes. Joël made studies on 8 women who requested treatment for sterility. Results of his studies tally with those of Belonoschkin. The spermatozoa were still viable in the vagina forty-five minutes after coitus but failed to show motility after sixty-five minutes. The author agrees with Belonoschkin that the vagina cannot be regarded as a "receptaculum seminis." This role must be ascribed to the cervix, where the spermatozoa remain longest. It has been found that the spermatozoa remain twenty-five hours in the body of the uterus. The orgasm plays some part in the passive transmission of the spermatozoa and in the conception. The tubes contain only dead spermatozoa after twenty hours, according to Hoehne. Joël concludes on the basis of these and earlier investigations that human spermatozoa remain viable in the female organism up to forty-eight hours.

Archivos Arg. de Enf. del. Ap. Digest, Buenos Aires

17:547-654 (June-July) 1942. **Partial Index**

*Functional Alterations of Pancreas in Duodenal Ulcer. M. R. Castex, A. L. C. Maggi and H. E. F. Stocker.—p. 549.
Duodenal Polyps: Roentgen and Anatomicopathologic Study. T. Castellano.—p. 558.
Treatment of Gastroduodenal Hemorrhages. O. Copello and E. Etala.—p. 564.
Pseudoantral Metaplasia and Acid Recuperation of Gastric Stump After Pylorogastrectomy for Ulcer. J. Ovido Bustos.—p. 574.
Life of Gastrectomized Patient; Results of Gastrectomy for Gastric and Duodenal Ulcer. R. Delgado.—p. 590.
Peptic Ulcer Following Gastrectomy and Anastomosis (Billroth I). R. Finochietto and N. B. Turco.—p. 613.
Quincke's Edema and Disorders of Digestive Tract. G. P. Goñalons and C. Bonovino Peró.—p. 616.
Tabes and Duodenal Ulcer. A. Richieri and R. Quivno Lavalle.—p. 634.

Functional Alterations of Pancreas in Duodenal Ulcers.—According to Castex and his associates, lesions of the pancreas often concur with those of the stomach, duodenum, liver and the biliary passages. Insufficient attention is paid to functional disturbances of the pancreas. The course of a duodenal

ulcer is often accompanied by symptoms which direct attention toward pancreatic involvement such as pain on the left side, intestinal disturbances in the form of an enteritis, gastroenteritis or flatulent dyspepsia, appearance of feces which indicate a mild lack of fat digestion, a transitory glycosuria, loss of appetite alternating with voracious hunger, and psychic disturbances such as anxiety, nervousness, asthenia and restlessness. They performed Wohlgemuth's test on the blood and urine in 40 cases of duodenal ulcer and in some cases they also studied the lipase in the duodenal contents. Pancreatic involvement was detected in 15 of the 40 cases, or 37.5 per cent. They are even more frequent in acute ulcers and in the acute flare-ups of chronic ulcers with edema, hemorrhage and pain. The physiopathologic relationship between the duodenal and pancreatic processes may be explained by the anatomic contiguity, functional association, ascendant canalicular infection, hematogenous metastasis, direct lymphatic passage (demonstrated by Bartels) and allergic conditions present in some cases of ulcer.

Revista Médica Latino-Americana, Buenos Aires

27:557-652 (March) 1942. **Partial Index**

Crossed Sex Hormones as Harmonious Source of Human Happiness: Question on Whether Sex Can Be Determined at Will. E. Escomel.—p. 557.
*Volkmann's Dry Caries of Shoulder Osteoarthritis. A. E. Baila, M. F. Corsellas and E. J. Molina Mascias.—p. 578.

Volkmann's Dry Caries.—Baila and his collaborators report 7 cases of tuberculous osteoarthritis of the shoulder in adults observed for several years. Early in the course of the disease there are but few symptoms and pain is moderate. Later, there appear fever and acute pain, the articular movements are gradually restricted and atrophy of the scapular muscles, especially of the deltoid, rapidly progresses. Majority of the patients remain in good general health for a long time. Some complain of toxic symptoms. The first tuberculous lesions in the bones appear in the roentgenograms when they have reached about the size of a large pea. All lesions are situated at the periphery of the head of the humerus and in the humeral epiphysis. In the advanced period the interarticular fissure is widened when there is hydrarthrosis and narrowed in the absence of it. Hygienic-dietetic regimen, heliotherapy and climatic therapy at the seashore are indicated. Orthopedic treatment is indicated in children. In adults orthopedic treatment alone is not sufficient. It is resorted to as a preoperative therapy. The joint is immobilized in a cast for a time during which the patient has the proper general therapy. Extra-articular arthrodesis is successfully performed.

Revista de la Sociedad de Pediatría de Rosario

7:1-98 (April) 1942. **Partial Index**

Cysts of Bone. E. Travella.—p. 3.
*Polyneuritis Due to Whooping Cough. J. C. Santa María and Y. Besedovsky.—p. 16.
*Massive Doses of Vitamin D_2 in Therapy of Rickets. Gloria Lovell.—p. 19.

Polyneuritis Due to Whooping Cough.—Santa María and Besedovsky report a case of polyneuritis and paralysis of the legs developing in an infant in the course of whooping cough. The Wassermann reaction was negative and the cerebrospinal fluid was normal. The patient was treated with massage of the legs and vitamin B_1. The disease pursued a favorable course and terminated in a recovery within three weeks. The paralytic symptoms were caused by a multiple neuritis due to localization of the virus in certain peripheral nerves.

Massive Doses of Vitamin D_2 in Rickets.—Lovell administered large doses of vitamin D_2 in 5 cases of acute rickets in infants of very poor families. The substance was given by mouth in daily doses of 50,000 international units for ten consecutive days or by intramuscular injection of 200,000 international units every other day up to a total of 600,000 international units. Symptoms of intolerance did not appear. The immediate results were as good as those of the classic therapy of rickets but more rapid. The disease recurred in 1 of the patients, who probably was resistant to the substance. The author advises giving small doses of the vitamin for a long time after discontinuation of the therapy, especially in winter, in order to maintain the good results of the large doses.

Zeitschrift f. d. ges. Neurol. u. Psychiatrie, Berlin

171:401-606 (March 4) 1941. **Partial Index**

Tonus as Problem Related to Constitution. E. Kretschmer.—p. 401.
Biologic Approach to Psychiatric Problems. H. F. Hoffmann.—p. 408.
Effect of Chronic Oxygen Deficiency on Human Brain: Observations on Patient with Morbus Caeruleus and Congenital Heart Defect. W. Scholz.—p. 426.
*Heredobiologic Evaluation of Postinfectious Psychoses. W. Enke.—p. 475.
Morphologic Basis of Diabetes Insipidus. R. Gaupp.—p. 514.
*Symptom-Free Interval in Epidemic Encephalitis in Evaluation of Veterans' Compensation. E. Schnizer.—p. 547.
Delusions of Schizophrenic Patient. G. Schmidt.—p. 570.
Sleeping of Night Shift Workers. M. Breuninger.—p. 591.

Heredobiologic Evaluation of Postinfectious Psychoses.—Observations on 37 patients convinced Enke that hereditary endogenic factors play only a subordinate role in postinfectious psychoses. The number of patients with a tendency to psychotic reactions is large. This tendency may consist in physical or nervous exhaustion, constitutional deficiency or endocrine disturbances. In some cases there exists also a temporary tendency to a psychosis, that is, repeated and severe exogenic lesions may cause a symptomatic psychosis in entirely normal persons. Repeatedly observed changes in the cerebrospinal fluid of patients with postinfluenzal psychoses indicate an organic reaction of the central nervous system to the infectious virus. These organic lesions may be partly responsible for the postinfluenzal psychoses. The course of postinfluenzal psychosis is usually favorable, but permanent injury is not impossible and termination into such a permanent injury is not necessarily a proof of the endogenic character of a psychosis. The author concludes that the majority of postinfectious psychoses which develop in the absence of a hereditary predisposition are exogenic in origin regardless of whether their symptomatology is predominantly exogenic or endogenic. In the presence of a hereditary predisposition, however, postinfectious psychoses with an endogenic symptomatology are usually endogenic in nature. Schizophrenia that develops after an infection can be regarded as endogenic only when the psychosis terminates with a schizophrenic defect or when a further not exogenically elicited schizophrenic attack can be demonstrated. In such cases there frequently exists proof of hereditary predisposition or of schizoid characteristics in some of the relatives. Since the postinfectious psychoses with cyclic characteristics, in contradistinction to schizophrenia, usually regress without residual defects, this indicator of endogenicity is absent. Thus there must be clear signs of hereditary predisposition to manic-depressive psychosis if a postinfectious circular psychosis is to be identified as endogenic.

Epidemic Encephalitis and Veterans' Compensation.—In reviewing testimonies in compensation cases for postencephalitic parkinsonism, Schnizer repeatedly encountered the statement that a symptom free interval of fifteen and more years existed between the acute onset of epidemic encephalitis and the appearance of postencephalitic parkinsonism. He raises the question of whether such a symptom free interval occurs with sufficient frequency to be acceptable as a factor in the evaluation of epidemic encephalitis. His observations in 67 cases did not reveal a single one with a symptom free interval of ten years' duration. He regards long symptom free intervals between the acute stage of epidemic encephalitis and parkinsonism as extremely rare. He concludes that there have been cases with a symptom free interval between the acute and chronic form of epidemic encephalitis. A case reported by Beringer indicates that this interval can be extremely long. However, reports by Leonard, von Witzleben and Tyndel are not sufficient proof that such symptom free intervals are frequent. The symptom free interval is important for the physician who renders expert testimony in compensation cases only if the acute infection was typical and established beyond a doubt. Compensation for service injury should be recognized only when the patient with postencephalitis had the acute infection during the period of service. If during the war he had only an influenza-like or a latent acute infection, the probability of a causal connection of the parkinsonism with the acute disorder is to be confirmed only if pseudoneurasthenic symptoms can be traced back to this acute disorder and it thus can be proved that it has been an atypical, acute epidemic encephalitis.

Book Notices

Industrial Psychology. By Joseph Tiffin, Ph.D., Professor of Industrial Psychology, Purdue University, Lafayette, Indiana. Cloth. Price, $4.65. Pp. 386, with 96 illustrations. New York: Prentice-Hall, Inc., 1942.

Industrial psychology is too little known and understood by the medical profession. It supplements industrial physiology and hygiene by surveying aptitudes, capacities, interests and attitudes. The present volume is a rather academic work, apparently intended for psychology and engineering college students and not aimed directly at the medical profession. It gives a fairly good general picture of the methods of testing employees in order to place the right shaped peg in the appropriate hole. Some attention is also given to interpersonnel relationships such as foremanship and some of the factors which go into developing a favorable attitude toward the employer. Much of the material discussed covers specific tests which have been constructed and adequately standardized for some special selecting procedures. Some consideration is also given to the matter of properly training employees. Of most importance to industrial physicians, however, are the chapters on visual problems of industry and on work, fatigue and efficiency. The material covered in the chapter on vision shows that many of the visual standards previously conceived as being accurate by the ophthalmologist fluctuate and need to be dealt with by directing the eye specialist's attention directly to the job in hand rather than to the general correction of visual errors. The effect of age, specific job requirements, eye wear, classifications and retest of vision are among some of the interesting topics dealt with in this chapter. The atmosphere of the book is distinctly peacetime: stress is laid on selecting the best worker for the best job and on the readjustment of employees who are deficient to begin with in order to make them superior workers, whereas the wartime attitude of industrial psychology is to develop placement procedures which will make the hitherto inadequate employee a useful contributor to production. There are two appendixes dealing with statistical matters, and a third which gives a list of publishers of aptitude tests.

The Toxicity and Potential Dangers of Toluene, with Special Reference to Its Maximal Permissible Concentration. By W. F. von Oettingen and others. From the Division of Industrial Hygiene, National Institute of Health. Prepared by Direction of the Surgeon General. Federal Security Agency, U. S. Public Health Service, Public Health Bulletin No. 279. Paper. Price, 10 cents. Pp. 50, with 20 illustrations. Washington, D. C.: Supt. of Doc., Government Printing Office, 1942.

On the basis of evidence presented in this pamphlet, the maximal permissible concentration of toluene in air is put at 200 parts per million for eight hours' exposure. Since some variation in muscular coordination is produced in human subjects at this level, further reductions are indicated wherever specific or unusual accident hazards exist. The authors conclude that toluene is less toxic than benzene in respect to the hemopoietic system and less toxic than carbon tetrachloride on the liver. Other effects were noted, such as pulmonary and kidney irritation, especially on exposure to higher concentrations. Routes of assimilation and excretion are described. If concentrations are held at or below the maximal figures quoted in this report, the authors feel that untoward effects are not to be expected.

Formulary and Handbook, The Johns Hopkins Hospital. Edited by John C. Krantz Jr., Secretary of the General Committee of Revision of the United States Pharmacopoeia. Cloth. Price, $2. Pp. 253. Baltimore: John D. Lucas Company, 1942.

This booklet is just what it purports to be. It is prepared to familiarize the staff of the hospital with the various medicaments that are available from the pharmacy. The basis of admission of substances to the formulary are said to be therapeutic efficacy, simplicity and availability. The booklet is exceedingly practical, and one finds few of the complex formulas which in a previous generation would have been the chief items in such a list. There is still, however, a complicated formula for a douche powder, and innumerable complicated formulas are used in diseases of the skin. A casual survey shows no preparations from the National Formulary and, indeed, relatively few from any sources except the United States Pharmacopeia and New and Nonofficial Remedies.

A Textbook of Gynecology. By Arthur Hale Curtis, M.D., Professor and Chairman of the Department of Obstetrics and Gynecology, Northwestern University Medical School, Chicago. Fourth edition. Cloth. Price, $8. Pp. 723, with 401 illustrations chiefly by Tom Jones. Philadelphia & London: W. B. Saunders Company, 1942.

The qualities responsible for the popularity of Curtis's textbook, sustained for more than a decade, are again apparent in this edition. Revision every four years keeps the volume abreast of the times, and the period is also sufficient for the appraisal of novelties, diagnostic and therapeutic. With remarkable efficiency available material has been assimilated. However, in the evaluation of new concepts and new procedures greater boldness would be justified. When passing judgment on the work of others, reticence, while becoming, is neither desirable nor necessary in this instance. The author's recognized fairness of mind, his grasp of the subject, his intimate experience of recent contributions to theory and practice, all combine to equip him as an expert—a very slight suggestion, to be sure, intended to encourage unequivocal verdicts more generously in future editions. None the less, the book meets the requirements of medical students exquisitely and, by the same token, offers men in practice for a number of years a refresher course, an ambition of many whose duties keep them at home.

Here the capital chapters of gynecology have been refurbished skilfully. Sections on menstruaton and its abnormalities, together with pertinent topics introduced logically elsewhere in the text, fill a hundred pages. The flux and change of endocrine teaching receive ample consideration, correctly critical of commercial products indiscreetly advertised.

The therapy of gonorrhea and of puerperal infection duly stresses the sulfonamide compounds, preferably sulfathiazole.

Myomas, with causation as yet undetermined, invite speculation, notably with respect to treatment. The author would limit irradiation to small fibroids and to women toward the end of the childbearing period or thereafter.

Cancer of the cervix may be cured in 56 per cent of the cases if recognized early, but in only 5 per cent when diagnosis has been delayed until a late stage. The choice between radical hysterectomy and irradiation remains a source of lively dispute. Apparently the advocates of high voltage roentgen therapy are gaining ground steadily. Cancer of the body of the uterus is another matter. Scant room there for argument. Whole hearted commendation has been won by the New York Memorial Hospital technic: preliminary intensive irradiation followed by curettage to confirm the diagnosis, and ten days later abdominal hysterectomy with removal of the tubes and ovaries.

Displacements and relaxations, the title of a valuable chapter, are illustrated lavishly. The narrative reflects the author's devotion over many years to the study of anatomic and mechanical details concerned with normal support of the pelvic organs. His well known monographs on this subject reached conclusions which shape the course of the operative technic he advocates: in all, a very distinguished service.

A short section on sterility in women, more valuable because compact, reviews the causes of infertility, the diagnostic methods currently employed and subsequent management, often tedious. The paragraph dealing with surgical procedures devised to bring about sterilization conveys a false sense of security. No matter what the procedure, failure occasionally will be the sequel, even with the Madlener operation. Such a possibility ought to be mentioned, at least.

Most impressive in this edition is the rewritten section on ovarian tumors. The literary work involved has been done efficiently. On the other hand, the practical aspects of the subject are marred by the absence of a classification, confessedly impossible on the basis of either embryology or histology. So another criterion must be sought. Inspiration for the project is not wanting. The present achievement of a morphologic classification of bony pelves conforming with x-ray findings and supplanting the older grouping along developmental lines should bring encouragement.

Mere enumeration of ovarian neoplasms, the plan adopted here, unjustly coordinates these tumors—promotes a distorted view of their relative clinical significance.

Admittedly, it serves a good purpose to discuss at considerable length disgerminoma (granulosa cell, arrhenoblastoma, Brenner tumor, mesonephroma and other types on which pathologic

interest centers at the moment). It clarifies the nature of these mysterious growths and thus will lead more frequently to immediate identification. However, that they will ever become more than curiosities is doubtful. Certainly they will never be prominent in the day to day practice of gynecology. While one reads the descriptions of these rare, peculiar tumors—and indeed time and again throughout the book—there is an awareness of the author's master hand at the difficult art of clear medical exposition.

Food & Drug Regulation. By Stephen Wilson. Introduction by Walton H. Hamilton. Cloth. Price, $3.25. Paper. Price, $2.50. Pp. 177. Washington, D. C.: American Council on Public Affairs, 1942.

The story contained in this book, vividly and interestingly told, concerns the history of federal efforts to protect consumers from misbranded and adulterated food and drugs. As pointed out by the author, federal legislation on the problem has been a long drawn out struggle, beginning with the first general proposal introduced in Congress in 1891 by Senator Paddock of Nebraska and culminating, for the present at least, in the enactment of the Food, Drug and Cosmetic Act of 1938. Between 1891 and 1906 each Congress was asked to enact legislation to afford consumers some modicum of protection but it was not until the latter year, after decades of education and agitation, that an insistent public opinion finally resulted in the passage of the first comprehensive federal law dealing with the problem. The important part that Dr. Harvey Wiley, described by the author as "easily the outstanding figure of the long crusade for pure food and drugs," assumed in the struggle and the strenuous opposition of the traffickers in nostrums are portrayed in detail. Loopholes and defects in the 1906 law were recognized in the early days of enforcement, and many attempts were made to improve the act. Year after year recommendations were made to Congress, but nothing came of them. This inaction resulted, the author thinks, from a lack of public concern and from the continued opposition of the same forces which had delayed passage of the law for so many years. The concluding chapters of the book are devoted to the active campaign for new legislation that began in 1933, to an analysis of the act of 1938 that eventuated from that campaign and to a discussion of the purposes and consequences of food and drug legislation. The final paragraph in the book is provocative: "Perhaps the answer to the pure food and drug problem lies in consumer education. Certainly that field has been badly neglected. And certainly the consumer has much at stake. An official of the Federal Trade Commission has estimated the amount taken from consumers annually, through the sale of merchandise fraudulently advertised, at $500,000,000. Sound consumer education will inevitably result in an extension of sound food, drug and cosmetic legislation."

Pulmonary Tuberculosis and Its Treatment. By Hans Jacob Ustvedt, M.D., First Assistant Physician to the State Hospital, Oslo. Translated by A. L. Jacobs, M.R.C.P. With a foreword by W. D. W. Brooks, D.M., F.R.C.P. Cloth. Price, 25s. Pp. 252, with 56 illustrations. London: John Bale Medical Publications Limited, 1942.

In introducing this textbook in England, Brooks points out that it presents an opportunity to study the disease from a fresh point of view. The publication sets forth the Norwegian attitude to the subject in a concise and eminently readable form. Some of the views put forward by Dr. Ustvedt diverge from the orthodox as we understand it. These opinions are advanced, however, with impartiality, the evidence being cited on which they are based. The book originated from a series of lectures to medical students at the University of Oslo. Emphasis is laid on the practical and clinical aspects of the subject, but the theoretical aspects are not neglected. During the past ten years there has been intensive research into many tuberculosis problems in Scandinavia, and the author aimed to make some of the results of this work known to the English speaking medical world, particularly the work of Olaf Scheel and Johannes Heimbeck. The contents include five chapters on tuberculous infection, progressive pulmonary tuberculosis (phthisis), miliary tuberculosis, treatment and prophylaxis. Aside from the usual considerations, the author includes tuberculin tests, laboratory tests, differential diagnosis, complications, and tuberculosis and life insurance. The book is interesting to the American physician because it develops mainly around continental European views, which are frequently not clearly defined in American works. The immune conception bases on a close binding with actual presence of infection dating from the classic Koch experiment, and thus also BCG is justified for its relative value. In phthisis the primary and secondary changes are stressed and various types of solitary foci and cavities are elucidated. Collapse treatment may not be needed in a large group of cases, but with evidences of cavity this is the only valuable form of active treatment. Artificial pneumothorax is still established on an empirical basis and is primarily mechanical. The chief indication for thoracoplasty is tuberculous cavities which cannot be made to collapse by pneumothorax treatment. Sanatoriums have gradually changed from peaceful backwaters of conservative therapy into tuberculosis hospitals where active methods of treatment are extensively applied. As a subsidiary to active therapy, general treatment has its value. At present there is general agreement that there is no special diet which has a specific curative effect on tuberculosis. Thus Ustvedt presents a book containing many of the modern rationalities on tuberculosis but highly punctuated with the recent Scandinavian views which merit reading. The publishers of this English edition present it on a good grade paper (5½ by 8½ inches) suited to taking the illustrations and for convenience in carrying and filing.

High Polymers: A Series of Monographs on the Chemistry, Physics and Technology of High Polymeric Substances. Editorial Board, H. Mark, E. O. Kraemer and G. S. Whitby. Volume IV: Natural and Synthetic High Polymers: A Textbook and Reference Book for Chemists and Biologists. By Kurt H. Meyer, Ph.D., Professor of Organic Chemistry, University of Geneva, Geneva, Switzerland. Translated by L. E. R. Picken, Ph.D. Cloth. Price, $11. Pp. 690, with 180 illustrations. New York: Interscience Publishers, Inc., 1942.

This book is volume IV in a series of monographs on the chemistry, physics and technology of high polymeric substances. It appeared originally as the second volume of a two volume work in German on the structure of natural, organic high polymers. The author attempts in this volume to give a systematic account of the entire field of natural and synthetic high polymers, both inorganic and organic. After a general discussion of the methods employed in the study of high polymers, the author considers inorganic high polymers and high polymeric hydrocarbons, including rubber and related substances. About one third of the book is devoted to cellulose, starch, gums and other polysaccharides. The author then discusses proteins, including globular and fibrillar proteins, enzymes and virus proteins. The last portion of the book deals with the properties of solutions of high polymers, films and membranes and, finally, the molecular structure of plant and animal tissues. Besides containing a great deal of valuable information, the book emphasizes a point of view which will be new and perhaps stimulating to most biologists. This point of view and its value to the biologist may be best indicated by quoting directly from the translator's preface: "The common meeting ground of chemists and biologists in high polymer chemistry is that of morphology. Since the day when, as a result of the development of x-ray analysis, chemical formulas ceased to be symbols on paper and became models in three dimensions, the chemist has become more and more accustomed to think in terms of what may be called morphological chemistry. To the biologist, who observes that both shapes and properties of cells and cell components reflect their molecular organization, it seems likely that morphological chemistry may prove to be the chemistry of morphology. It is for him now to consider biological structure and organization in their high polymer guise."

Traumatic Surgery of the Jaws Including First-Aid Treatment. By Kurt H. Thoma, D.M.D., Professor of Oral Surgery and Brackett Professor of Oral Pathology, Harvard University, Boston. Cloth. Price, $6. Pp. 315, with 282 illustrations. St. Louis: C. V. Mosby Company, 1942.

This book is intended as a guide to surgeons and dentists who are confronted with injuries of the jaws. There are ten chapters, covering first aid treatment, examination of the patient, treatment planning, facial and oral wounds, traumatic injuries of the teeth, fractures of the mandible, fractures of the maxilla, traumatic injuries of the condyle and mandibular joint, deformities caused by traumatic injuries, nursing and diet. In the management of fractures of the jaws the author's wide personal experience is well reflected. In addition he describes most of the newer methods of fixation, such as the intraoral pin fixation

of Berry and the various extraoral skeletal fixation plans based on the Roger Anderson principle. Mention is not made of the Kirschner wire transfixation method as described by Barrett Brown. In fracture-dislocation of the neck of the condyle of the mandible, Thoma advocates the open method of reduction and fixation. This is contrary to the opinion of most authorities, who feel that conservative methods yield sufficiently satisfactory results in the vast majority of cases without running the risks attending the open method. The complications and deformities resulting from traumatic injuries of the jaws are well covered with the exception of restoration of losses of substance by bone grafting, which receives no attention at all. This important omission should be corrected in a future edition, since approximately 10 per cent of gunshot fractures of the lower jaw result in nonunion requiring bone grafting. A complete bibliography is appended. Dr. Thomas has presented a useful contribution for those interested in this special field of surgery.

Binocular Imbalance. By Margaret Dobson, M.D. Cloth. Price, 10s. 6d. Pp. 96, with 19 illustrations. London: H. K. Lewis & Co., Ltd., 1942.

The author believes that binocular balance depends on the correct relationship between convergence and accommodation. The technic of examination of the extraocular muscles is described in minute detail, and the standard for average ductions is presented as:

lateral adduction 18Δ, out cyclophoria 5°, near point 36Δ
abduction 8Δ, in cyclophoria 2°, near point 36Δ
vertical supraduction 1.5Δ, infraduction 2Δ

A discussion of heterophoria and its therapy stresses exophoria as the commonest type, due to general debility, refractive error, insufficient convergence at the near point, and toxins. It is treated by a full static correction of the refractive error and orthoptic exercises (base out) to increase the fusional convergence. A search for the focus of infection, i. e. antrum or ethmoid, is made in case of toxemic exophoria. Presbyopia occurs when the amplitude of accommodation falls below 4.5 diopters. Although convergence at the reading point is a fixed quantity (18Δ) the accommodation is variable, depending on the angular measurement of the visual angle. In presbyopes, two thirds of all the exophoria at the near point in excess of 10Δ is corrected in the glasses. A patient having 16Δ exophoria at the reading distance will require 2Δ base in before each eye, for comfort and increased visual acuity. For the beginner, as well as the experienced private practitioner in ophthalmology, this book offers an excellent study of the tests and therapy of muscle imbalance of the eyes.

The Minnesota Multiphasic Personality Schedule. By Starke R. Hathaway, Ph.D., Associate Professor of Psychology, and J. Charnley McKinley, M.D., Ph.D., Professor of Neuropsychiatry, University of Minnesota, Minneapolis. With 550 Test Cards, One Manual, 7 Scoring Transparents, and 50 Record-and-Profile Sheets. Paper. Price, $15. Pp. 31. Minneapolis: University of Minnesota Press, 1942.

This is a psychometric device useful in personality evaluation by psychologist, personnel worker or psychologist. It is particularly devised to bring to light persons with significant neurotic or psychopathic tendencies. The test consists primarily of five hundred and fifty statements, each printed on a separate card, covering a wide variety of subjects and interests. Attitudes about health, religion, sexual and general social attitudes and occupational interests indicate the range of interests touched on. The test is easy to administer, since the subject has merely to sort the cards into the three categories true, false or cannot say. The sorted cards are tabulated so as to provide a basic record, which may be scored at present by keys which measure hysteria, depression, hypochondriasis, psychopathic personality and masculinity-femininity. Additional keys are being developed, e. g. a key for paranoia. The standard data were obtained from studies of 700 normal adults and from 600 patients who were in a psychiatric hospital.

This personality schedule, in the hands of properly trained psychiatrists and psychologists, would appear to be of considerable usefulness when large numbers of persons must come under observation, as in industry. Doubtless disturbed persons can be sifted out by proper use of devices such as those here offered. The fact that the schedule is easy to administer should not be permitted to lead to its use by persons untrained in psychiatry or psychology. The schedule is not intended to do more than help identify disturbed persons and does not offer material or direction for treatment.

Electrophoresis of Proteins and the Chemistry of Cell Surfaces. By Harold A. Abramson, Assistant Professor of Physiology, College of Physicians and Surgeons, Columbia University, New York, Laurence S. Moyer, Assistant Professor of Botany, University of Minnesota, Minneapolis, and Manuel H. Gorin, Chemical Research Supervisor, Field Research Department, Magnolia Petroleum Company, Dallas. Cloth. Price, $6. Pp. 341, with 153 illustrations. New York: Reinhold Publishing Corporation, 1942.

The application of physicochemical methods to the study of proteins has extended our knowledge of this important class of substances enormously. Of all such methods devised and improved in recent years, electrophoretic methods have proved to be among the most useful. These methods make possible not only a study of the behavior of proteins in solution and at surfaces but also the isolation of individual proteins from complex natural mixtures. In this book the authors have attempted to cover this important field in a fairly complete form. The first six chapters deal with the theoretical and mathematical problems involved in studies of the migration of charged particles in electrical fields, together with descriptions of important experimental methods devised for such studies. Later chapters deal with electrophoretic studies of such systems as serum and plasma, antigens and antibodies, enzymes and hormones, protein mixtures, latex, surfaces and, finally, the surface chemistry of cells. This book is designed for investigators in diverse fields as physics, chemistry, biology and medicine. It should prove extremely valuable to all students wishing to acquire the necessary background for following the developments in this fruitful field.

The Interaction of Drugs and Cell Catalysts. By Frederick Bernheim, Ph.D., Associate Professor of Physiology and Pharmacology, Duke University School of Medicine, Durham, North Carolina. Paper. Price, $2.25. Pp. 85, with 9 illustrations. Minneapolis: Burgess Publishing Company, 1942.

One of the defects in this work the author frankly admits in the preface, namely that "only the pharmacological effects are described that are pertinent to the particular enzyme action under consideration." If a reader failed to observe that statement, the textual discussion might be a little misleading. Part I includes drugs that affect enzyme activity. About half of this part is devoted to the group that modify the action of cholinesterase, the remainder to drugs affecting other enzymes. Each separate subsection carries a bibliography. In the first group are physostigmine, morphine, strychnine, curare and methylene blue. In the second are cyanide, selenium, arsenic, copper, sulfanilamide and salicylate. Part II includes drugs that are acted on by certain enzymes, such as acetanilid, histamine, atropine, acetyl derivatives of morphine, epinephrine and alcohol. The detailed nature of the discussion does not permit of abstracting. The discussion is clear and terse. The subject matter is derived entirely from authentic literature. The author has brought together a great amount of valuable related material not readily assembled from any other source. This makes the monograph a valuable source book.

Preliminary Report on Children's Reactions to the War Including a Critical Survey of the Literature. By J. Louise Despert, M.D. Paper. Pp. 102. New York: New York Hospital and the Department of Psychiatry, Cornell University Medical College, 1942.

An excellent review of the literature on children's reactions to war is presented. The method of study utilized is one previously reported in studies of anxiety and fear reactions in normal young children. The present investigation is based on studies of children known to the writer, on records of children previously in attendance at a nursery school and the use of questionnaires sent to parents of children who had previously been instructed in the purpose of the study. Where anxieties in relation to the war were reported or observed, invariably the child had previously presented an anxiety problem. Manifestations of anxiety were varied. Fearfulness at night, specific fears of injury and direct fear of blackouts are among the reactions noted. Well adjusted children tend to express confidence in the outcome of the war. The author states that very young children are not affected by the war, their comments indicating that the words they use bearing on war do not have the emotional content for them that they have for the older

children. The author briefly discusses the protective mechanisms that enable children to cope with the anxiety. Abreaction through play is almost universally noted. She emphasizes the tendency of children to "do something about it," either in phantasy or in activity of defense value. Children who have evidenced anxiety with compulsive tendencies have been able to cope less readily with their anxiety about the war than have those children who, though anxious, were overtly aggressive in their behavior. She adds that while all children showing anxiety in relation to the war had previously presented a problem of anxiety, the reverse does not hold. The author concludes from her survey of the literature that the evils of evacuation, as carried out, would appear to be worse than the effects of bombings. The main difficulty is dependent on the separation of children from their parents. Suggestions are made for the further study of the effects of war strain on children.

A Manual for the Differential Diagnosis of Oral Lesions. By Joseph L. Bernier, D.D.S., M.S., Major, Dental Corps, U. S. Army, Washington, D. C. Cloth. Price, $4. Pp. 228, with 175 illustrations. St. Louis: C. V. Mosby Company, 1942.

Major Bernier has successfully attempted a correlation of the clinical and pathologic aspects of the various lesions of the oral tissues. The early chapters deal with indications and technic for biopsy, histology of the skin and mucous membrane, and inflammation. Then follow detailed clinical and histologic discussions of superficial lesions of the oral mucous membrane and adjacent skin, benign and malignant tumors of the mouth and jaws, tumors of odontogenic origin, cysts and miscellaneous diseases of the oral region. The author has drawn on the rich material of the Army Medical Museum and illustrates the text with numerous excellent photomicrographs as well as photographs and x-ray studies of actual cases. No mention is made of an important group of metastatic tumors of the jaws having their primary seat elsewhere in the body. Aside from this omission, the book is an excellent presentation of the subject and should be valuable not only to specialists in the oral field but to dermatologists and medical men in general, who frequently have difficulty in finding under one cover accurate information on lesions of the mouth and jaws.

Disability Evaluation: Principles of Treatment of Compensable Injuries. By Earl D. McBride, B.S., M.D., F.A.C.S., Assistant Professor in Orthopedic Surgery, University of Oklahoma School of Medicine, Oklahoma City. Third edition. Cloth. Price, $9. Pp. 631, with 374 illustrations (Art work by Herbert Chezam). Philadelphia, Montreal & London. J. B. Lippincott Company, 1942.

The present edition of this textbook follows the same arrangement as the first. A brief chapter on the doctor as an expert witness has been added. In addition, the author has presented a table of rating schedules based for the most part on the various state schedules now in effect in the United States. The use of such a composite table, however, is predicated on an arbitrary method of allocating a specified amount to certain factors by which extent of disability is to be measured. These seven factors have been selected from the many variables that comprise what are termed normal states and reactions and cannot themselves be used as a standard, since we do not yet possess any device that will accurately measure the traits involved. How, for instance, can one determine what is a workman's "normal ability to protect himself and others while at work"? The rating of disabilities is so much a social problem that it is a question whether the doctor should not confine himself to an opinion on the clinical findings and leave the economic evaluation to the actuarian.

The Principles and Practice of Cardiology. By Crighton Bramwell, M.A., M.D., F.R.C.P., Professor of Systematic Medicine in the University of Manchester, Manchester, and John T. King, A.B., M.D., F.A.C.P., Associate Professor of Medicine, School of Medicine, Johns Hopkins University, Baltimore. Cloth. Price, $12. Pp. 509, with 204 illustrations. New York & London: Oxford University Press, 1942.

This volume is unique in that the authors have collaborated in writing an Anglo-American textbook of cardiology. It is also unique in its division into general and special cardiology. The first portion of the book, written by Dr. Bramwell of Manchester, England, is devoted to general cardiology and deals with the general problems of heart disease, the history, the physical examination, the disturbances of cardiac function, the prognosis and the treatment. The second portion of the book, written by Dr. King of Johns Hopkins University, deals with special cardiology. In this section heart disease is considered from the standpoint of etiology. Both authors write from the point of view of the clinician, and they record largely the results of their personal experience. They have done an excellent job of setting forth in a relatively brief volume the essentials of heart disease. It should prove valuable to the student and general practitioner.

The Time of My Life: A Frontier Doctor in Alaska. By Harry Carlos De Vighne. Cloth. Price, $3. Pp. 336. Philadelphia & New York: J. B. Lippincott Company, 1942.

This is the autobiography of a general practitioner of medicine with a long and varied career. The author was an orphan who found himself stranded in New York City at 8 years of age with no home, no friends and no money. He was taken in by a saloon keeper whose credo, if he had one, was loyalty to his friends. After unsuccessful attempts at farming the boy took a freight train for Deadwood, where he hoped to assist his "uncle" in the practice of law. In roaming around he met a doctor who had fallen from grace in more ways than one. The orphan remained in the doctor's home, became interested in his medical library and at the age of 19 first had the idea of studying medicine. He matriculated at the Hahnemann Medical College of the Pacific in San Francisco and after an internship applied to the U. S. Bureau of Education for a position in Alaska, where he practiced medicine for many years. He became secretary of the Alaska Board of Medical Examiners and was a delegate from Alaska to the House of Delegates of the American Medical Association during one of its meetings in Dallas. On finally realizing that he was the oldest doctor in Alaska in point of residence but one, the author returned to southern California to spend his remaining years. This book illustrates again that medicine can be practiced well in circumstances that are far more simple than those in the large institutions in populous centers.

Afecciones traumáticas de los meniscos de la rodilla. Por Hector dal Lago. Tesis de doctorado, Universidad nacional de Buenos Aires, Facultad de ciencias médicas. Paper. Pp. 222, with 102 illustrations. Buenos Aires: Aniceto López, Imp., 1941.

Much interest attaches to this rather voluminous thesis on traumatic disorders of the knee joint. After reviewing the meniscal anatomy and physiology the author discusses the functional and mechanical alterations of the cartilages under normal and pathologic conditions, the histologic aspects and the meniscal pathologic conditions. About half of the book is devoted to the foregoing discussions. The rest of the work is a clinical consideration of meniscal injuries and diseases. Pneumoarthroradiography of the knee receives a great deal of discussion. Some fifty of the remaining pages are devoted to the treatment of the various meniscal lesions. More than a hundred excellently reproduced illustrations illuminate the text. The pneumoarthroradiograms are particularly interesting and well illustrated. The author considers the use of opaque substances, all of which have been used, as less valuable than air or oxygen. Full details of technic are given and at the last a statistical review of sixty-five operations on ruptured cartilages.

The Prospective Mother: A Handbook for Women During Pregnancy. By J. Morris Slemons, M.D., Professor of Obstetrics and Gynecology, University of California, San Francisco. With a chapter on Care of the Newborn by Phillip E. Rothman, M.D., Professor of Clinical Pediatrics, University of Southern California, Los Angeles. Fourth edition. Cloth. Price, $2.50. Pp. 274, with 17 illustrations. New York & London: D. Appleton-Century Company, Incorporated, 1942.

The author has attempted to describe the various changes which occur during pregnancy in the human fetus and the mother. His description of the fetal and maternal changes is not well done. Diagrams and illustrations would have been of inestimably more value than the lengthy descriptions. The major portion of the book concerns the symptoms and signs of pregnancy together with the major and minor complications with a list of the important symptoms and signs. This has been done adequately and the only criticism, a minor one, is that the lists of supplies and clothing could very well have been omitted without in any way detracting from the book. The reviewer recommends the book for pregnant women.

Queries and Minor Notes

THE ANSWERS HERE PUBLISHED HAVE BEEN PREPARED BY COMPETENT AUTHORITIES. THEY DO NOT, HOWEVER, REPRESENT THE OPINIONS OF ANY OFFICIAL BODIES UNLESS SPECIFICALLY STATED IN THE REPLY. ANONYMOUS COMMUNICATIONS AND QUERIES ON POSTAL CARDS WILL NOT BE NOTICED. EVERY LETTER MUST CONTAIN THE WRITER'S NAME AND ADDRESS, BUT THESE WILL BE OMITTED ON REQUEST.

WEIGHT GAIN IN PREGNANCY—CALCIUM, IODIDES AND VITAMIN K IN PREGNANCY

To the Editor:—**What is the normal monthly gain for the pregnant woman? What preparations of iodine and calcium are best for the pregnant woman? When should vitamin K be given?** **M.D., Pennsylvania.**

ANSWER.—The average weight gain of a normal woman during pregnancy is 9 or 10 Kg. The total weight gain, as well as its distribution during the antepartum period, is of paramount importance. There is little or no gain during the first trimester. Nausea and vomiting or the distaste for food early in the gestation may result in an actual loss of weight. This loss is usually recovered by the end of the first three months. About one third of the total weight gain occurs during the second three months at the rate of 0.25 Kg., or one-half pound, a week. During this period much of the accumulation is represented by an increase of the mother's own protein stores. About two thirds of the total weight gain occurs during the last three months of the pregnancy at the average rate of about 0.5 Kg., or 1 pound, a week. The baby and its environment grow rapidly during this period and account for much of the increased weight.

Pregnant women should have about 1 Gm. of calcium daily in order to cover all fetal requirements. This is ideally supplied by 1 quart of milk a day. Cottage cheese or other milk products are likewise excellent sources of calcium. When calcium is supplied in other forms it is less readily assimilated, and large quantities must be administered. Calcium lactate or calcium gluconate must be given in at least 5 Gm. daily doses to provide the minimum requirements.

Iodine is likewise best administered in the diet as sea foods or other iodine rich substances. A very small amount is sufficient to meet the daily requirement. In the Great Lakes region and other localities where goiter is common, iodized salt is widely used. In the event that additional iodine is necessary, 2 to 3 drops a day of compound solution of iodine may be prescribed.

The role of vitamin K in obstetrics is not clearly defined as yet. Many institutions administer this material prophylactically at the onset of labor. Although this procedure is harmless, its value is still open to question. Vitamin K should be administered subcutaneously to any newborn infant that develops evidence of hemorrhagic disease. Babies who have been subjected to difficult deliveries may possibly benefit from its administration.

CONVULSIONS IN MOTHER AND CHILD AFTER TRANSFUSION

To the Editor:—**Several days ago a boy aged 8 with acute appendicitis was admitted to the hospital. On operation the appendix was found gangrenous and perforated. The patient was in a state of shock at the conclusion of the operation, and 300 cc. of citrated whole blood from his mother was administered intravenously. One hour after the transfusion both mother and child had rather severe convulsive seizures lasting about ten minutes. On questioning, a history of occasional previous epileptic attacks was elicited from the mother. The child had had no previous attacks. Is it reasonable to suppose that the seizure in the case of the child was produced by some substance in the mother's blood? Have any similar instances been reported?**

J. W. Yost, M.D., Williamson, W. Va.

ANSWER.—Since no humoral factor has ever been identified in epilepsy, it is doubtful that the convulsive seizures in the child can be ascribed to any substance in the blood which it received from its mother. Many cases of epilepsy are on a constitutional basis, so that the child may have inherited the diathesis from its mother without having previously exhibited any manifestation of the disease. The simultaneous convulsive seizures in mother and child were probably coincidental, though it is possible that the changes in intracranial pressure induced in 1 case by the withdrawal of blood, in the other by its injection, as well as the emotional disturbance incidental to the procedure, may also have played a part. Instances similar to that described in the inquiry have apparently not been encountered previously.

GLOMERULONEPHRITIS

To the Editor:—**On annual physical examination a miner of iron ore aged 26 was found to have a 4 plus albumin in his urine, with many red blood cells. No history of scarlet fever, repeated tonsillitis or other causative factor could be elicited. He asserted that he felt as well as he ever had. The physical examination was entirely normal except for a blood pressure of 142 systolic, 88 diastolic. It was later discovered that the same urinary findings had been present on examination in January 1941. Repeated examinations of the urine showed many red blood cells constantly present and occasional showers of hyaline and finely granular casts. A two hour Mosenthal test showed a concentration from 1.015 to 1.024. Phenolsulfonphthalein excretion was 30 per cent at the end of thirty minutes, 15 per cent at the end of an hour and 5 per cent at the end of two hours for a total of 50 per cent. Nonprotein nitrogen was 27.9 mg., hemoglobin 91 per cent, white blood cells 11,500 with 63 per cent neutrophils, 31 per cent lymphocytes, 1 per cent eosinophils, 4 per cent monocytes and blood sedimentation rate 5 mm. in one hour. The blood Kahn reaction was negative. Intravenous pyelograms revealed no abnormalities in the kidneys, kidney pelves or ureters. A chest roentgenogram revealed no pleural, pulmonary or cardiac abnormality. The questions are in what stage of the disease is this patient at present? In the absence of all symptoms, what management would be advised for this patient?** **E. R. Addison, M.D., Crystal Falls, Mich.**

ANSWER.—The lines of demarcation between the various stages of glomerulonephritis are not sufficiently sharp to justify a categorical statement from the data available on this case. But precise classification is unnecessary for intelligent management. Obviously the disease is not of long standing or the hemoglobin would have fallen to below the normal level of 91 per cent. Neither is it extremely recent in origin, for there is manifest some rise in the arterial tension and the findings were discovered at least ten months ago. One is most concerned with search for evidence as to the etiologic factors, for effective therapy is predicated on the eradication of active etiologic influences. The mild but distinct leukocytosis is suggestive of an infective origin, and further search in the patient's history and physical findings for some active or recently active focus of infection is suggested.

Management may well be divided into three categories: (1) therapy directed against the known and/or suspected etiologic factors, (2) steps taken to reduce the physiologic burden of the injured structures and (3) efforts to maintain the tissue nutrition and respiration as near the optimum as possible. Neglect of any one of this triad of points of attack makes for incomplete and ineffective therapy. Though these three principles are almost universally pertinent, their immediate application must be highly individualized. Therapy directed against caution cannot be suggested until further diagnostic study clarifies the etiologic picture. Infective foci in or about the upper respiratory tract are to be suspected. The frequency of rhinitis and/or pharyngitis may be a significant clue. If toxic heavy metals are suspected as a source of renal injury, urinalysis for such metals is indicated and avoidance of dust or fume exposure becomes of paramount importance.

Rest of the injured structures, the renal parenchyma, is best assured by maintaining a free diuresis through liberal fluid intake. It is less work for the kidneys to secrete a large volume of dilute urine than a small volume of highly concentrated urine. If his work is in deep mining at high environmental temperatures, the loss of water through excessive perspiration may be a factor in preventing free water diuresis. It is notable that on the Mosenthal test no really dilute specimen was obtained. Rapid and extensive changes in environmental temperature are to be avoided; chilling is especially detrimental because of the renal vasoconstriction and ischemia consequent thereto. Heavy and prolonged manual labor likewise may affect the renal circulation adversely. A change of occupation may be advisable, but from the data available one cannot state this dogmatically.

Though the third group of therapeutic objectives is of great importance, it is the most commonly neglected aspect of management. With a hemoglobin of 91 per cent and avoidance of those conditions which are conducive to renal vascular constriction, nothing further need or can be done to assure an adequate supply of oxygen for normal tissue respiration by the injured parenchymal cells. The profuse proteinuria, however, is an indication for immediately and emphatically raising the protein intake in the patient's diet. His daily loss of protein should be roughly estimated (the Kingsburg-Clarke sulfosalicylic acid method is the quickest and most satisfactory procedure for quantitation of urinary protein) and more than this amount should be added to the normal daily requirements in the patient's diet. The protein reserves have been depleted by the long and profuse proteinuria; these must be replenished. It is relatively immaterial just what protein food is ingested; the

normal balanced sources of protein such as meat, eggs, milk and cheese are wholly satisfactory. Not infrequently such liberal protein feeding tends to diminish the albuminuria. Alcohol and the "hot" or irritating condiments and spices should be wholly deleted. Tobacco may be allowed in moderation. Periodic reevaluation of the patient's status, particularly as to the blood, the arterial tension and the renal functional capacity, should be carried out at intervals of from three to six months. The renal concentration test is the most sensitive index to early renal functional impairment.

ALLERGY TO HOUSE DUST

To the Editor:—**Do you know of any unbiased study of so-called house dust in its relation to the occurrence of hay fever and asthma in children and particularly as to results obtained after treatment with injections of "house dust"? Frankly, I am extremely skeptical of the whole business, and while I do not believe that the rapidly growing group of allergists are actually "exploiting," still I sometimes wonder if their enthusiasm may not get control of their better judgment. It is entirely possible that in the dust from your house or my house or father's factory or grandpa's chicken coop one might discover certain molds or fungi to which certain individuals might be allergic; but to inject an extract made from the dust from a household vacuum cleaner would seem about as reasonable as to make one from a load of hay and give it to some one who was sensitive to June grass. In my practice there is a large proportion of children, and so many of them have been taken to an allergist, found sensitive to "house dust" and given injections that I am a bit bewildered. I cannot honestly show much enthusiasm to the parents as to this procedure, and if you have available any opinions on the subject that might make me think there was a bit of benefit to be gained from it by any one but the allergist I should be grateful to be shown the light.** **H. G. Bull, M.D., Ithaca, New York.**

ANSWER.—The story of the role of house dust in allergy is a rather complex one, and only the highlights can be discussed here. House dust and other dusts have been blamed as the cause in numerous instances of respiratory allergy. These dusts can act in one of three ways: (1) mechanically, (2) chemically and (3) allergically. In many patients various dusts, such as house dust, chalk dust and street dust, are of sufficient concentration to produce mechanical irritation of mucous membranes, which can precipitate indirectly an allergic attack in one who is already under the influence of allergic factors. Chemical components in dusts in the home, and more particularly outside the home, may produce similar effects in allergic individuals. In addition to these two properties house dust can, without question, act as an allergen. The problem broached in the query is Are such allergic effects due to a specific identity known as "house dust" or are they due merely to one or more allergens in the home (feathers, cottonseed, silk, dog hair, orris root) which are responsible for the allergenic qualities?

In 1922 Cooke (R. A.: *J. Immunology* **7**:147 [March] 1922) first showed evidence supporting the idea that there is a specific allergenic substance in house dust not related necessarily to the specific individual materials in the home. Pratt (H. N.: *J. Allergy* **8**:60 [Nov.] 1936) and others were able to demonstrate passive transfer of reagins from dust sensitive patients. It was shown by Cohen (*J. Lab. & Clin. Med.* **14**:837, 1929) and others that the active "dust" allergen was found mainly in the cotton dust of bedding and furniture rather than in rugs, draperies or new bedding. In trying to trace the mechanism of production of this "dust" allergen, Cohen and his associates (*J. Allergy* **6**:517 [Sept.] 1935) found that new cotton linters did not contain this active principle, but the aging of such linters, under any of a number of conditions—exclusion of air, sterilization and exclusion of bacteria and fungi—resulted in a new "dust" antigen. Their experiments suggest that other organic articles, such as feathers or kapok, will produce a similar allergen on aging. In animals a number of experimenters (Cohen, M. B.; Cohen, Stanley, and Hawver, Kenneth: *J. Allergy* **10**:561 [Sept.] 1939. Friedman, H. J., *ibid.* **10**:479 [July] 1939. Coulson, E. J., and Stevens, Henry: *Proc. Soc. Exper. Biol. & Med.* **40**:457 [March] 1939) demonstrated the antigenicity of cotton linters and house dust.

It is common everyday experience with those who see many cases of respiratory allergy that many reactions are obtained to house dust in the absence of reactions to those individual specific allergens which might be present in the home. To say that every person who gives a cutaneous reaction to the dust antigen must react to the dander of some animal or hair article in the home, to feathers, to cottonseed, to orris root or pyrethrum, or to any individual and identifiable allergen is simply to ignore facts. Many such occurrences are common in the practice of any one who is considered unbiased in other matters. In support of these simple clinical observations Hampton and Stull (*J. Allergy* **11**:109 [Jan.] 1940) report a series of antigenic studies by the Dale test on guinea pigs. Most of the animals sensitized to house dust gave Dale reactions to the latter and some gave reactions to other antigens that might be present in the home, such as dog dander, cat dander and feathers. Desensitization with any of the latter antigens did not desensitize against the house dust antigen, The house dust antigen from homes where the other common inhalant antigens were absent gave as good an antigenic response as the other samples of house dust. They conclude that house dust extract contains an antigen other than that found in the usual inhalants. On the other side of the argument, the work of Albert, Bowman and Walzer (*J. Allergy* **9**:392 [May] 1938) must be cited. These workers conclude from clinical and passive transfer studies that, when dust reagins are found, reagins are present also to some other dust producing inhalant, such as wool, feathers, hairs, cottonseed, flaxseed, silk or pyrethrum.

In spite of all these considerations there is good reason to believe that many specimens of dust extract contain chemical and possibly histamine-like irritants which may account for the many whealing reactions. These clinical impressions are strengthened by the experimental observations of Friedman and also of Coulson and Stevens. It is necessary, therefore, to evaluate a "house dust" antigen and regard its reactions as significant only if a sufficient number of nonallergic patients fail to give a reaction to it. When this condition is met and allergy to the usual house inhalants can be excluded, one must perforce come to the conclusion that one is dealing with a specific "house dust" antigen even though practically nothing is known about its nature. The suggestion is made that there is no reason to suppose that this dust antigen, which is produced by the aging of organic substances in the home, is restricted to the home environment. It is not unreasonable to suppose that similar changes taking place in the organic material outdoors result in an atmospheric antigen, which may be widespread and generally distributed. It may perhaps constitute an important source of heretofore unidentified antigen.

Needless to say, the question of treatment must be decided on logical clinical grounds. The criteria for treatment with dust extract should be as follows: 1. The reaction must be shown to be a specific one (not a false, irritative reaction). 2. There should be reasonable certainty that the reaction is not due to other antigens which could be more easily procured in pure and potent form, such as pollen, feathers, hairs, cottonseed and fungi. 3. Clinical observation should be in conformity with the diagnosis of dust allergy (worse indoors, worse in winter, aggravated by dusting and bed making). 4. If house dust allergy has been reasonably established, dust precautions (dust proof casings for mattress and pillows, simple furniture and the like) should be instituted on the proposition that when the greater source of the dust allergy has been excluded the patient may be able to tolerate the remainder to which he is exposed. 5. Finally, if these procedures have been followed step by step, and symptoms still continue, desensitization with dust extract is definitely justified.

TREATMENT OF SYPHILIS IN PATIENT WITH CARCINOMA

To the Editor:—**In Queries and Minor Notes in The Journal, Nov. 14, 1942, page 872, there appeared under the title "Treatment of Syphilis in Patient with Carcinoma" a query by M.D., New Mexico, as to "whether sobisminol mass would be indicated in such a case and would it be beneficial, or what type of antisyphilitic therapy (which would have to be oral) could be given this man." The categorical answer was "At present there are no drugs that can be used orally in the successful treatment of syphilis. . . ." This neither answers the question nor indicates any familiarity with the antisyphilitic efficacy of sobisminol mass. The correct answer is that sobisminol mass is a Council accepted preparation of bismuth for oral use in antisyphilitic treatment, is clinically successful in all stages of syphilis, and there is no good reason to believe that it would not be beneficial in the case referred to. Its usefulness as an antisyphilitic agent is attested by some thirty published reports to date, none of which have denied its efficacy or usefulness. Truth is that sobisminol mass (N. N. R.) is the only orally effective bismuth preparation for use in the treatment of syphilis, to date, and the only one that should be used.**

P. J. Hanzlik, M.D., San Francisco.

RESUSCITATION OF INFANTS

To the Editor:—**In Queries and Minor Notes in The Journal, Nov. 21, 1942 Dr. Bundesen's reply to the query on the resuscitation of infants, page 995, did not fully cover the request. On numerous occasions in which infants fail to respond to tracheal catheterization and the milder attempts at resuscitation the cause is revealed at autopsy. This is often cerebral hemorrhage due to prolonged labor or operative delivery by forceps and especially by haste in delivery of breech cases.**

John Joseph Gill, M.D., Chicago.

JOURNALS ABSTRACTED IN THE CURRENT MEDICAL LITERATURE DEPARTMENT, SEPTEMBER-DECEMBER 1942

Titles have been listed or Abstracts made of important articles in the following journals in the Current Literature Department of THE JOURNAL during the past four months. Any of the journals, except those starred, will be lent by THE JOURNAL to subscribers in continental United States and Canada and to members of the American Medical Association for a period not exceeding three days. Three journals may be borrowed at a time. No journals are available prior to 1932. Requests for periodicals should be addressed to the Library of the American Medical Association and should be accompanied by stamps to cover postage (6 cents if one and 18 cents if three periodicals are requested). Thus most of these journals are accessible to the general practitioner.

Acta chirurgica Scandinavica. Stockholm.
Acta dermato-venereologica. Stockholm.
Acta medica Scandinavica. Stockholm.
Acta pædiatrica. Stockholm.
Acta psychiatrica et neurologica. Copenhagen.
Acta radiologica. Stockholm.
Amatus Lusitanus. Lisbon.
American Heart Journal. St. Louis.
American Journal of Clinical Pathology. Baltimore.
American Journal of Digestive Diseases. Fort Wayne, Ind.
*American Journal of Diseases of Children. A. M. A., Chicago.
American Journal of Hygiene. Baltimore.
American Journal of the Medical Sciences. Philadelphia.
American Journal of Obstetrics and Gynecology. St. Louis.
American Journal of Ophthalmology. Cincinnati.
American Journal of Orthopsychiatry. New York.
American Journal of Pathology. Ann Arbor, Mich.
American Journal of Physiology. Baltimore.
American Journal of Psychiatry. New York.
American Journal of Public Health. New York.
American Journal of Roentgenol. and Radium Therapy. Springfield, Ill.
American Journal of Surgery. New York.
American Journal of Syphilis, Gonor. and Venereal Diseases. St. Louis.
American Journal of Tropical Medicine. Baltimore.
American Review of Tuberculosis. New York.
Anales de la Facultad de medicina de Montevideo.
Anales de la Sociedad de Puericultura de Buenos Aires.
Anesthesiology. New York.
Annales Pædiatrici. Basel.
Annali d'Igiene. Rome.
Annals of Internal Medicine. Lancaster, Pa.
Annals of Otology, Rhinology and Laryngology. St. Louis.
Annals of Rheumatic Diseases. London.
Annals of Surgery. Philadelphia.
Archiv für Gynäkologie. Berlin.
*Archives of Dermatology and Syphilology. A. M. A., Chicago.
Archives of Disease in Childhood. London.
*Archives of Internal Medicine. A. M. A., Chicago.
*Archives of Neurology and Psychiatry. A. M. A., Chicago.
*Archives of Ophthalmology. A. M. A., Chicago.
*Archives of Otolaryngology. A. M. A., Chicago.
*Archives of Pathology. A. M. A., Chicago.
Archives of Physical Therapy. Chicago.
*Archives of Surgery. A. M. A., Chicago.
Archivos argentinos de enfermedades del aparato digestivo y de la nutrición. Buenos Aires.
Archivos de medicina infantil. Havana.
Archivos latino americanos de cardiología y hematología. Mexico, D. F.
Australian and New Zealand Journal of Surgery. Sydney.
Beiträge zur Klinik der Tuberkulose. Berlin.
Beiträge zur klinischen Chirurgie. Berlin.
Boletín del Instituto de medicina experimental para el estudio y tratamiento del cancer. Buenos Aires.
Boletín de la Oficina sanitara panamericana. Washington, D. C.
Boletín de la Sociedad cubana de pediatría. Havana.
British Heart Journal. London.
British Journal of Children's Diseases. Dorking, England.
British Journal of Dermatology and Syphilis. London.
British Journal of Experimental Pathology. London.
British Journal of Ophthalmology. London.
British Journal of Radiology. London.
British Journal of Surgery. Bristol.
British Journal of Urology. London.
British Medical Journal. London.
Bulletin of the Johns Hopkins Hospital. Baltimore.
Bulletin of the Los Angeles Neurological Society.
Bulletin of the New York Academy of Medicine. New York.
California and Western Medicine. San Francisco.
Canadian Medical Association Journal. Montreal.
Canadian Public Health Journal. Toronto.
Cancer Research. Baltimore.

*Cannot be lent.

Chirurg. Berlin.
Connecticut State Medical Journal. Hartford.
Delaware State Medical Journal. Wilmington.
Der deutsche Militärarzt. Berlin.
Deutsche Zeitschrift für Chirurgie. Berlin.
Deutsches Aerzteblatt. Berlin.
East African Medical Journal. Nairobi.
Edinburgh Medical Journal.
Endocrinology. Springfield, Ill.
Hawaii Medical Journal. Honolulu.
Helvetica medica acta. Basel.
Illinois Medical Journal. Chicago.
Journal of Allergy. St. Louis.
Journal of the Arkansas Medical Society. Fort Smith.
Journal of Bone and Joint Surgery. Boston.
Journal of Clinical Endocrinology. Springfield, Ill.
Journal of Clinical Investigation. Boston.
Journal of Endocrinology. London.
Journal of Experimental Medicine. New York.
Journal of the Florida Medical Association. Jacksonville.
Journal of Hygiene. London.
Journal of Immunology. Baltimore.
Journal of the Indiana State Medical Association. Indianapolis.
Journal of Industrial Hygiene and Toxicology. Baltimore.
Journal of Infectious Diseases. Chicago.
Journal of Investigative Dermatology. Baltimore.
Journal of the Iowa State Medical Society. Des Moines.
Journal of the Kansas Medical Society. Topeka.
Journal of Laboratory and Clinical Medicine. St. Louis.
Journal-Lancet. Minneapolis.
Journal of Laryngology and Otology. London.
Journal of the Maine Medical Association. Portland.
Journal of the Medical Association of the State of Alabama. Montgomery.
Journal of the Medical Association of Georgia. Atlanta.
Journal of the Medical Society of New Jersey. Trenton.
Journal of the Michigan State Medical Society. Lansing.
Journal of the Missouri State Medical Association. St. Louis.
Journal of the Mount Sinai Hospital. New York.
Journal of the National Cancer Institute. Washington, D. C.
Journal of Nervous and Mental Disease. New York.
Journal of Neuropathology and Experimental Neurology. Baltimore.
Journal of Neurophysiology. Springfield, Ill.
Journal of Nutrition. Philadelphia.
Journal of Obstetrics and Gynaecology of British Empire. Manchester.
Journal of the Oklahoma State Medical Association. Oklahoma City.
Journal of Pathology and Bactertology. Edinburgh.
Journal of Pediatrics. St. Louis.
Journal of Pharmacology and Experimental Therapeutics. Baltimore.
Journal of Physiology. Cambridge.
Journal of the South Carolina Medical Association. Florence.
Journal of the Tennessee State Medical Association. Nashville.
Journal of Thoracic Surgery. St. Louis.
Journal of Urology. Baltimore.
Kentucky Medical Journal. Bowling Green.
Klinische Wochenschrift. Berlin.
Lancet. London.
Laryngoscope. St. Louis.
Medical Annals of the District of Columbia. Washington.
Medical Journal of Australia. Sydney.
Medicina. Mexico, D. F.
Medicine. Baltimore.
Military Surgeon. Washington, D. C.
Minnesota Medicine. St. Paul.
Münchener medizinische Wochenschrift. Munich.
Nebraska State Medical Journal. Lincoln.
New England Journal of Medicine. Boston.
New Orleans Medical and Surgical Journal.
New York State Journal of Medicine. New York.
Nordisk medicin. Stockholm.
North Carolina Medical Journal. Winston-Salem.
Northwest Medicine. Seattle.
Ohio State Medical Journal. Columbus.

Pennsylvania Medical Journal. Harrisburg.
Physiological Reviews. Baltimore.
Practitioner. London.
Psychiatric Quarterly. Utica, N. Y.
Psychoanalytic Quarterly. Albany, N. Y.
Public Health Reports. Washington, D. C.
Quarterly Bulletin of Sea View Hospital. Staten Island, N. Y.
Quarterly Journal of Medicine. Oxford.
Quarterly Journal of Studies on Alcohol. New Haven, Conn.
Radiology. Syracuse, N. Y.
Review of Gastroenterology. New York.
Revista argentina de Cardiología. Buenos Aires.
Revista argentina de neurología y psiquiatría. Rosario.
Revista chilena de pediatría. Santiago.
Revista clínica española. Madrid.
Revista médica de Chile. Santiago.
Revista médica latino-americana. Buenos Aires.
Revista de la Sociedad de pediatría de Rosario.
Rhode Island Medical Journal. Providence.
Rocky Mountain Medical Journal. Denver.
Schweizerische medizinische Wochenschrift. Basel.
Semana médica. Buenos Aires.
South African Journal of Medical Sciences. Johannesburg.
South African Medical Journal. Cape Town.
Southern Medical Journal. Birmingham, Ala.
Southern Surgeon. Atlanta, Ga.
Southwestern Medicine. Phoenix, Ariz.
Strahlentherapie. Berlin.
Surgery. St. Louis.
Surgery, Gynecology and Obstetrics. Chicago.
Texas State Journal of Medicine. Fort Worth.
Transactions of the Royal Society of Tropical Medicine and Hygiene. London.
Tubercle. London.
Ugeskrift for læger. Copenhagen.
Upsala läkareförenings förhandlingar. Uppsala.
Vida Nueva. Havana.
Virginia Medical Monthly. Richmond.
*War Medicine. A. M. A., Chicago.
Western Journal of Surgery, Obstetrics and Gynecology. Portland, Ore.
West Virginia Medical Journal. Charleston.
Wisconsin Medical Journal. Madison.
Yale Journal of Biology and Medicine. New Haven.
Zeitschrift für die gesamte Neurologie und Psychiatrie. Berlin.
Zeitschrift für klinische Medizin. Berlin.
Zentralblatt für Gynäkologie. Leipzig.

SUBJECT INDEX

This is an index to all the reading matter in THE JOURNAL. In the Current Medical Literature Department only the articles which have been abstracted are indexed.

The letters used to explain in which department the matter indexed appears are as follows: "BI," Bureau of Investigation; "E," Editorial; "C," Correspondence; "OS," Organization Section; "ab," abstracts; the star (*) indicates an original article in THE JOURNAL.

This is a subject index and one should, therefore, look for the subject word, with the following exceptions: "Book Notices," "Deaths," "Medicolegal Abstracts" and "Societies" are indexed under these titles at the end of the letters "B," "D," "M," and "S." State board examinations are entered under the general heading State Board Reports, and not under the names of the individual states. Matter pertaining to the Association is indexed under "American Medical Association." The name of the author, in brackets, follows the subject entry.

For author index see page 1498.

A

"A" blood substance, plasma transfusion reactions due to, 206—E; [Levine & State] *275; [Klendshoj] 314—ab; [Thalhimer] *1263
ADM Wheat Germ Oil, 470—BI
AP, antiprothrombin therapy, 1040—E
A. T. 10: See Dihydrotachysterol
ABBOTT, MAUDE E., congenital heart lesions classification, [Bromer] *251
ABBOTT Laboratories, Army-Navy E to, 777
ABDOMEN: See also Ascites; Gastrointestinal Tract; Peritoneum
acute, Yodice sign to differentiate from muscular rigidity, [Yodice] 990—ab
Distention: See Flatulence
pain (acute or recurrent) from prostatitis [Freund] 396—ab
pain of urologic origin in children, [Campbell] 721—ab
painful crises in sickle cell anemia, [Cabrera Calderín] 243—ab
sulfonamides implanted in, 167; [Jentzer] 243 ab; (concentration in portal vein vs. systemic circulation) [Pearce] 982—C
Surgery: See Appendectomy; Colectomy; Colostomy; etc.
wall, local anesthesia and intercostal block for, 1079
ABDOMINAL BELT: See also Corset
elastic, advise wearing for angina pectoris, 168
ABNORMALITIES: See Crippled; under organ affected as Heart; Nails
ABORTION: See also Labor; Medicolegal Abstracts at end of letter M
criminal, alien Japanese physician sentenced, Ariz., 851
criminal, uterus inversion after, [McLennan & McKelvey] *679
febrile, intrauterine interventions in, [Schumacher] 868—ab
frequency; effect on maternal mortality, 538—E
habitual and threatened, corpus luteum extracts for, [Falls] 866—ab
habitual, diethylstilbestrol for, [Karnaky] 866—ab
habitual thyroid extract and vitamin E for, 86
Infectious, in Cattle (Bang's Disease): See Brucellosis
prevention, progesterone and progestin metabolism in, [Davis] 237—ab
prevention, vitamin E, [Stähler] 486—ab; [Shute] 564—ab; [Butt] *1035
proteinuria in pregnancy toxemia, [Dieckmann & Kramer] *590; (discussion) 598
therapeutic, in preventing pregnancy toxemia [Eastman & Whitridge] *729
ABRUPTIO placentae: See Placenta, abruption
ABSCESS: See also Furunculosis; Suppuration (cross reference); Ulcers; under organ affected as Lungs
Bezold's, from mastoid cell infection, [Orton] *875
periesophageal (buccopharyngeal), [Orton] *877
perirenal, blood stream infection, [Gibson] 401—ab
retropharyngeal, [Orton] *875
treatment, sulfathiazole emulsion, [Ackman] 235—ab
ACADEMY: See also American Academy; National Academy; New York Academy; Rochester Academy
of Medicine of Cleveland position on medical service plan, 1328
ACANTHOLYSIS bullosa: See Epidermolysis
ACCELERATORS in rubber masks cause dermatitis, 127—E; [Petro] 157—ab
ACCIDENTS: See also Casualty; Disability; Trauma; Wounds
Air Raid: See Air Raids
ACCIDENTS—Continued
Automobile: See Automobiles
compared to war casualties, 1150
falls; slipped; caught from falling; cause of thrombosed hemorrhoid? 325
farm, campaign against, N. Y., 299
First Aid for: See First Aid
in the home, 62; (campaign against, N. Y.), 299
Industrial: See Industrial Accidents; Workmen's Compensation
Kansas 10th annual report: also list of freak accidents, 50—E
Medical Research Council report on personal factor in, 841—E; 856
National Safety Council report, 62
Prevention: See Safety
Traffic: See also Automobiles
traffic fatal; killing people on roads, England, 636
ACCOMMODATION: See Eyes
ACETANILID addiction: Dr. James' Headache Powder, [Austin] *911
ACETYL-beta-METHYLCHOLINE: See Mecholyl
ACETYLCHOLINE, action on intestinal motility, [Puestow] *906
thymectomy affects action of, [Harvey] 1251 —ab
ACETYLSALICYLIC ACID: See Acid
ACHLORHYDRIA: See Stomach, acidity
ACHYLIA: See Stomach
ACID, acetic, naphthalene as fruit spray, 207—E
acetylsalicylic, in rheumatic fever, [Coburn] 720—ab
acetylsalicylic, massive overdosage, [Oakley] 483—ab
Amino Acids: See Amino Acids
p-aminobenzoic, [Elvehjem] *1395
Ascorbic: See also Vitamins C
ascorbic, chemistry; clinical aspects, [Elvehjem] *1396
ascorbic, daily allowances, [Wilder & Keyes] *530; (in British diet) *534
ascorbic, deficiency with gastric lesions, [Lund] 863—ab
ascorbic, detoxicating action in gold therapy, 1331
boric-butyn-petrolatum gauze for burns, [Hughes] 651—ab
Carbolic: See Phenol
Citric, in blood: See Blood
citric, in bone vs. other tissues, 208—E
citric, occupational exposure, affect teeth? 658
dehydrocholic, N. N. R., (tablets, Lakeside) 1307
folic, cartilage growth factor, [Elvehjem] *1396
fumes decalcify dental enamel, [Schour & Sarnat] *1201; *1202
Hydrochloric: See also Stomach, acidity
hydrochloric, giving produce ulcer? 657
Nicotinic: See also Vitamins B1
nicotinic acid, N. N. R., (tablets, Parke, Davis) 1307
nicotinic acid amide, N. N. R., (tablets, Breon) 205
nicotinic acid amide, Niacinamide, N. N. R., (tablets, Flint, Eaton) 45
nicotinic acid amide, Nicotinamide, N. N. R., (hyposol solution of, Drug Products) 45
nicotinic acid, Niacin, N. N. R., (tablets, Flint, Eaton) 45
nicotinic, diethylamide of, Nikethamide, N. N. R., (solution, Breon) 453
nicotinic, in various foods, chemistry; clinical aspects, [Elvehjem] *1389; *1391
nicotinic, recommended daily allowances, [Wilder & Keys] *530
pantothenic, in various foods; chemistry; clinical aspects, [Elvehjem] *1389; *1392
ACID—Continued
phosphatase serum in prostate cancer, [Herger] 74—ab; [Alyea & Henderson] *1099; [Nesbit & Cummings] *1109; [Gutman] *1112; [Herbst] *1116
Potassium Tartrate (cream of tartar): See Potassium bitartrate
ACIDITY: See Duodenum; Stomach
ACIDOSIS, chronic, with late rickets, [Boyd] 1339—ab
Diabetic: See Diabetes Mellitus
ACNE: See also Furunculosis
adolescent, pyridoxine for [Jolliffe] 75—ab
Aknasol, 391—BI
bacillus culture, penicillin in, [Craddock] 82 —ab
vitamin C deficiency cause of? 1262
vulgaris, x-ray irradiation for, [Kline] 478 —ab
ACOUSTICON, Model A-55, 839
ACROMEGALY, effect of thymus hormone on blood sugar, [Bomskov] 1258—ab
ACROMELALGIA: See Erythromelalgia
ACTIVITY, early, after hemiplegia, 995
how soon after childbirth? 631; 801; 1147
ACUNA, MAMERTO, retires, 637
ADAMS, ROGER, Harvey lecture on marihuana, 1128—E
ADAPTATION, Dark: See Eyes, accommodation
ADDICTION: See Acetanilid; Alcoholism; Aminopyrine
ADDISON'S ANEMIA: See Anemia, Pernicious
ADDISON'S DISEASE, adrenal function test (Cutler-Power-Wilder) [Saurer] 868—ab
angina pectoris in, [Fischer] 83—ab
treatment, desoxycorticosterone acetate, [Thorn] 152—ab; (sublingually) [Wilson] 570—ab; [Jonáš] 798—ab; [Engel] 1430 —ab
ADENITIS: See Lymphatic System; Periadenitis
ADENOLYMPHOMA of parotid gland, [Plaut] 234—ab
ADENOMA, hypophysial, possible, 250
Nontoxic, of Thyroid: See Goiter
Toxic, of Thyroid: See Goiter, Toxic
ADENOMYOSIS: See Endometriosis
ADOLESCENCE, acne in, pyridoxine for, [Jolliffe] 75—ab
duodenal ulcer constitutional pattern in [Morrison & Feldman] *738
laryngeal and vocal changes (atypical), [Greene] *1193
masturbation at high school age, 411
mental hygiene of war service for 18-year olds, open letter from 9 physicians, 705
obesity and probable mixed glandular deficiency in young girl, 88
physical status of NYA youth on out of school work programs, 634; 773—OS
precocious puberty in boy of 6, 492
premedical education and the 18 year old draftee, 1042—E; [Hillman] *1142; [Rowntree] *1229
tuberculosis (primary) in, [Leitner] 159—ab
urinary frequency refractory in young girl, 87; (reply) [Aring] 802
ADRENALIN: See Epinephrine
ADRENALS: See also Addison's Disease
cortex extract plus pitressin in diabetes insipidus, [Anderson] 1066—ab
cortex extract plus splenic extract in glaucoma, 1169
cortex, hormones, relation to renal function in toxemias of pregnancy, [Taylor] *598
Cortex (synthetic hormone): See Desoxycorticosterone
denervation (bilateral), Crile's, 411
disorders, angina pectoris in, [Fischer] 83 —ab
Extract: See also Adrenals cortex
extract treatment of burns, [Stilman] 320 —ab

ADRENALS—Continued
insufficiency, Cutler-Power-Wilder test, [Saurer] 868—ab
Medulla: See Epinephrine
tumors, adrenalin producing pheochromocytoma, [Kirshbaum] 234—ab
tumors, pheochromocytoma with hypermetabolism, [McCullagh] 234—ab
ADVERTISING: See also Medicolegal Abstracts at end of letter M
conservation of paper vs. waste by advertisers, [Smith] 1414—C
fined for practicing without license: Dr. Ray D. Hester, 851
of health resorts, A. M. A. Committee changes rules, 773—OS
of insurance firm on heart disease, Pittsburgh exposes, 292—E
AEDES simpsoni: See Mosquitoes
AERONAUTICS: See Aviation
AGAR, WPB conservation; use psyllium instead, 295
AGE, Adolescent: See Adolescence
factor in hemorrhage from peptic ulcer, [Meyer & others] ★813
factor in myocardial infarction, [Rathe] ★99
Old Age: See Old Age
premature aging and thyroid degeneration, [Hogg] 236—ab
War Service for 18 Year Olds: See under Adolescence
AGED: See Old Age
AGGLUTINATION method to determine fate of transfused erythrocytes, [Willenegger] 1437—ab
AGGLUTININS, anti A and anti B, [Thalhimer] ★1263
cold, [Davidsohn] ★1288
Isoagglutinins: See Blood groups
AGRANULOCYTOSIS, ACUTE, throat and nose signs, 1152
AIR: See also Humidity; Oxygen
ambulances, Middle East, 977
Compressed Air Disease: See Caisson Disease
disinfection, ozone, [Elford] 319—ab
disinfection, propylene glycol vapor, 625—E
disinfection, ultraviolet, 626—E
disinfection, ultraviolet, and propylene glycol to control influenza, [Stokes & Henle] ★16
Embolism: See Embolism
entry through transfusion sets, [Devas] 1071—ab
Myelography: See Spinal Canal
physiology of free fall through, 1311—E
Presence of, in Cavity: See Pneumothorax
screw injuries in aircraft apprentice, [Howkins] 570—ab
AIR FORCE: See Aviation; Medicine and the War, aviation, World War II
AIR PASSAGES: See Respiratory System
AIR RAIDS, British experience, 856; [Baehr] ★1045
casualty anesthesia in England, [McCarthy] ★599
injuries and surgeon, 505—ab
injuries, of civilians, Oakland will reimburse hospitals for care of, 131
physicians' cars during; equipped with Army blackout lighting devices, 248
shelters in buildings, 970
shelters, increased underground, England, 1151
AIRPLANES: See Aviation
AIRSICKNESS in Navy personnel, 1309—E
AIR-WAY Reducing Girdle, 146—BI
AKNASOL, 391—BI
ALBUMIN, human, clinical use in military medicine, 1041—E; [McIntire] ★1137
in Urine: See Albuminuria
ALBUMINURIA, hypertensive pregnancy, [Tillman] ★587; (discussion) 598
proteinuria in pregnancy toxemia, [Dieckmann & Kramer] ★590; (discussion) 598
ALCOBAN, 640—BI
ALCOHOL: See also Beer; Wine
Addicts: See Alcoholism
diuresis in man, [Eggleton] 1071—ab
effect of single large intake on fetus, 88
injection (paravertebral) in angina pectoris, complication, [Hirschboeck] 479—ab
venereal diseases and, (various authors) 882—ab; 883—ab
Wood: See Methyl Alcohol
ALCOHOLISM: See also "Drunkenness" under Medicolegal Abstracts at end of letter M
Alcoban, 640—BI
Alcoholics Anonymous, [Miller] ★271
Cravex, 785—BI
effect on bismuth hepatitis at San Quentin prison, [Kulchar & Reynolds] ★343
etiologic role in auto accidents, National Safety Council report, 62
lectures on, Massachusetts, 462
liver cirrhosis in, role of low protein diet and vitamin B complex deficiency, 624—E; [György & Goldblatt] 1157—C
Mrs. Moffat's Shoo Fly Powders for Drunkenness, 474—MI
treatment, ambulatory, especially amphetamine, candy; psychotherapy, [Miller] ★271
treatment, amphetamine sulfate barbiturate, [Davidoff] 239—ab
ALCOHOLISM—Continued
treatment, conditioned reflex, using emetine, [Lemere & others] ★269; (established under hypnosis) [Kroger] 714—C
ALIENS: See Physicians, foreign
ALIMENTARY Tract: See Digestive System; Gastrointestinal Tract
ALKALI disease, selenium poisoning, [Shils & McCollum] ★618
ALKALINE hematin method of hemoglobin estimation, [Clegg] 1435—ab
World's Tonic Compound with, 67—BI
ALKAPTONURIA: See Urine
ALLAY, 470—BI
ALLENTUCK, SAMUEL, clinical studies on effects of marihuana, 1128—E
ALLERGOSIL, asthma cure, 842—E
ALLERGY: See Anaphylaxis and Allergy
ALLOCATIONS: See Priorities and Allocations
ALOE Short Wave Diathermy Unit (Admiral Model) 204; (Commander Model) 372
ALOPECIA areata in child of 10, 165
George Glass and Nature's Scientific Method, 1243—BI
seborrheica, Thomas Home Treatment Kit, Trichotone and Trichovita, 785—BI
seborrheica, Wonder Dandruff Cure, 67—BI
total, cause of, [Levey] 578
ALPENKRAUTER, Forni's, 470—BI
ALTITUDE, effects, studies on, Bolivia, 636
High: See also Aviation; Mountain sickness
high, (30,000 feet); blood pressure at, 578
ALUMINUM hydroxide and phosphate gels for intragastric drip in peptic ulcer, [Winkelstein & others] ★743; [Cornell] 1426—ab
hydroxide drip for juxtapyloric ulcer with obstruction, [Rowland] ★818
nutritional element, [Shils & McCollum] ★618
phosphate gel, N.N.R., (description) 697; (Wyeth's Phosphaljel) 697
ALVARENGA Prize Lecture: See Lectures
Amatus Lusitannus: See Journals
AMBULANCES: See also Stretcher
air, (Middle East) 977; (Royal Air Force) 1132
florists corps, Philadelphia, 210
in British experience with air raids, [Baehr] ★1045
units of Emergency Medical Service; revised instructions for, 1222
Youngstown pools, 131
AMEBIASIS of penis, carbarsone cures, [Hermann & Berman] ★827
America Clinica: See Journals
AMERICAN: See also Inter-American; Latin American; Pan American; United States; list of organizations at end of letter S
Academy of Ophthalmology and Otolaryngology, (meeting) 301; (elections) 854
Academy of Pediatrics, (meeting) 634; (elections) 1238; (Mead Johnson award) 1328
Academy of Physical Medicine, (meeting) 384
Association for Advancement of Oral Diagnosis, (meeting canceled) 464
Association for Advancement of Science, (program) 1238; (postpones meeting) 1328
Association of Immunologists, (Dr. Cannon's address) 1309—E
Association of Obstetricians, Gynecologists and Abdominal Surgeons, (meeting) 61; (elections) 854
Board of Dermatology and Syphilology, (examination) 384
Board of Obstetrics and Gynecology, (educational objectives) [Dannreuther] ★169; (examinations) 777; (corrections) 1051
Board of Pediatrics, (examination), 464; (abolishes group I) 1150
Casualties: See World War II
Chemical Society (meeting: chemistry in relation to food industry) 207—E; (prizes) 384
Clinical and Climatological Association, (cancels meeting) 216
College of Physicians, (lectures for medical officers) 546; (cancels 1943 meeting) 1150; (regional meeting) 1150
College of Surgeons, (cancels meeting) 633; (standards of anesthetic practice by small hospitals) 802
Congress of Physical Therapy, (awards gold key to Elizabeth Kenny) 384; (elections) 854; (correction) 976
Cuban Fund of Helping the Allies blood plasma bank, 1329
Dental Association, (Commander Wells president-elect) 135
Diabetes Association, (statistical information) 216
Flying Services Foundation: See Foundations
Foundation: See Foundations
Gastroenterological Association (to publish *Gastroenterology*), 709
Gynecological Society, (registry of ovarian tumors) [Novak & others] 1057—C
Health Resorts: See Health resorts
Hospital Association, (elections) 1051; (awards silver cup to state hospitals, Mass.) 1147; (Dr. Caldwell resigns) 1406
Indians: See Indians
Journal: See Journals
AMERICAN—Continued
Laryngological Association, (Casselberry awards) 1150
MEDICAL DIRECTORY, (17th edition) 291—E; (Correction: St. Elizabeth Hospital, La Fayette, Ind.) 709; (Army and Navy physicians listed in) 1047—OS
Medical Women's Association, (meeting) 1051; (cancels meeting) 1409
Neisserian Medical Society, (elections) 1409
Numismatic Society, medals of the Army Medical Department, 1400—E
Pharmaceutical Association, (continue joint conferences with A. M. A.) 628—OS
Physiotherapy Association, (rehabilitation council) 633
Psychological Association, (meeting canceled) 61
Public Health Association, (elects officers, western branch) 216; (meeting) 464; (elections) 1238; (South Americans attend meeting) [Fishbein] ★1188
Red Cross: See Red Cross, American
Roentgen Ray Society, (meeting) 61; (Caldwell Medal to Dr. Rhoads) 384
Russian Committee for Medical Aid, [Razran] 226—C
Social Hygiene Association, social hygiene day: Feb. 3, 1328
Society for Control of Cancer, (campaign) 464; (Women's Field Army) 1049
Society for Hard of Hearing, (hard of hearing week) 216
Society of Anesthetists, 975
Urological Association (competition open for award) 1238
AMERICAN MEDICAL ASSOCIATION
AMERICAN MEDICAL DIRECTORY, (17th ed.) 291—E; (correction: St. Elizabeth Hospital, La Fayette, Ind.) 709; (Army and Navy physicians listed in) 1047—OS
American Red Cross first aid work commended by, 411
annual conference of medical service plan officials, need for, [Schwitalla] 1322—ab; [Kress] 1323—ab
Annual Conference of Secretaries and Editors, 706—OS; (proceedings) 1135—OS; 1224—OS; 1315—OS
Annual Congress on Industrial Health (fifth) 1128—E; (program) 1145—OS
approves the provisions for civilians for medical care and hospitalization necessitated by enemy action, 629—OS
Atlantic City, (guests from South America) [Fishbein] ★1187
Board of Trustees, (calls off San Francisco 1943 Session) 290—E; (minutes of meeting, Sept. 17-18) 628—OS
building, refurnishing of, 629—OS
Bureau of Investigation: A. O. Phillips, impostor, 145; Abstracts of F. T. C. cease and desist orders, 640; 785; 1156; of F. T. C. stipulations, 66; 225; 307; 391; 470; 641; 1334; Abstracts of F. D. A. notice of judgment on nostrums, 67; 785; on nostrums dangerous to health, 552; on cosmetics, 471; Abstracts of U. S. P. O. Fraud Orders, 1243
Bureau of Legal Medicine and Legislation: See also Medicolegal Abstracts at end of letter M
Bureau of Legal Medicine and Legislation; (disability insurance and hospital benefits—analysis of H. R. 7534—Eliot bill) 296—OS; (Soldiers' and Sailors Civil Relief Act Amendments) 539; (victory tax and medical profession) 1143—OS
Committee on American Health Resorts; (Major Holbrook resigns from) 628—OS; (changes in rules) 773—OS
Committee on Medical Preparedness: See subhead: War Participation Committee
Committee on Scientific Research, (grants for research), 544—OS
Committee on Student Health, 628—OS
Committee to study hospital corporations; relation of physicians to insurance co., 628
committees (various), appointments, 628—OS
Conference: See subhead: Annual Conference
Congress: See subhead: Annual Congress
contribution to the war effort, [McIntire] ★1138
Council on Foods and Nutrition (fellowship on prepared breakfast cereal foods) 628—OS; (nutritional aspects of sugar, candy and sweetened carbonated beverages) 763
Council on Foods and Nutrition, HANDBOOK OF NUTRITION, [Macy] ★34; [Lewis] ★198; [Heath] ★366; [Shils & McCollum] ★609; [Wilder & Keys] ★529; [Maynard] ★692; [Kohman] ★831; [Jeans] ★913; [Butt] ★1030; [Elvehjem] ★1388
Council on Industrial Health (meeting Jan. 7, 1942) 42; (terms of service of members) 628—OS
Council on Medical Education and Hospitals, (continuation courses) ★554; (premedical work recommended: M.D. degree 5 years after high school) 850—OS; (restores University of Georgia to approved list) 850—OS; (information on graduate training offered) 923—E; (report of meeting, Nov. 8) 972—OS; (continuation courses) ★1415

AMERICAN MEDICAL ASSOCIATION—Continued
Council on Pharmacy and Chemistry (use of bulk ether in anesthesia) [Gold] ★44; 49—E; (sodium thiosulfate) 124; (criticize studies on experimental hypertension by Goldblatt and others) [Dock] 147—C; (racemic epinephrine for oral inhalation) 287; (standardization of estrogens) 921; (higher type of antipneumococcus serums) [Finland] ★1294
Council on Physical Therapy, (therapeutic value of ultraviolet radiation) ★620; (minimum requirements for acceptable audiometers) 838; (5 years progress in field of audiometers and hearing aids) ★1213
de Kruif, Paul, testimony against, 922—E; 940; (dispatch from) 962; (Dr. West's telegram) 963
exhibits available on loan basis, 629—OS
grants for research, 544
Headquarters: See subhead: Building
hospital association representatives to meet with, 628—OS
hospitals, anesthetic practice approved by, 802
hospitals approved by, memorandum on essential positions, 56
hospitals approved for internships, residencies, fellowships, additional list, 972—OS
House of Delegates, (to be called into session in June 1943 in Chicago) 290—E
Indictment: See subhead: U.S. Supreme Court
JOURNAL, misquoted by Chicago *Tribune*, 46—E; (quotation from, used in advertising goat's milk not to be found in), 325; (circulation in South America) [Fishbein] ★1187
journals, Spanish and Portuguese, monthly digests of material published by, 628—OS; [Fishbein] ★1188
Medical Exhibits: See subhead: Exhibits
medical-pharmaceutical conference by American Pharmaceutical Association and, 628—OS
members, open letter to, on gasoline and tire rationing; 700—E; [Richards] 701
Millikin, Eugene D., in defense of A.M.A. at Pepper hearings, 1042—E
NEW AND NONOFFICIAL REMEDIES, 1130—E
organization, Dr. Fishbein's testimony regarding, 922—E; 948
Panel Discussions: See Peptic Ulcer; Poliomyelitis
President Rankin urges county societies to meet regularly, 1130—E; ★1135
Procurement and Assignment agency and, [Paullin] ★1224
radio program: Doctors at War, 628—OS; 925—E; 972—OS; 1047—OS; 1324—OS
San Francisco 1943 session called off, 290—E
school for clinical laboratory technicians, also list of schools, 972—OS
schools for physical therapy technicians approved by, 972—OS
Section on Laryngology, Otology and Rhinology (chairman's address), [Harkness] ★327
Section on Obstetrics and Gynecology (chairman's address) [Dannreuther] ★169
Section on Orthopedic Surgery (chairman's address), [Dickson] ★413
Section on Pathology and Physiology (chairman's address), [Simonds] ★89
Section on Practice of Medicine (chairman's address), [Scott] ★1
Section on Radiology (chairman's address), [Bromer] ★251
Section on Surgery, General and Abdominal (chairman's address), [Allen] ★493
Section on Urology (chairman's address), [O'Conor] ★579
sectional meetings to be fostered by, [Rankin] ★1135
South American physicians visiting U.S., plea for training program by, [Dornelles] ★1191
U. S. Supreme Court to review questions related to indictment, 624—E
War Medicine, published on monthly basis, 629—OS
War Participation Committee, (plan for medical and dental care of civilian communities) 628—OS; (functions), [Donaldson] ★1231
West, Olin, telegram about de Kruif's membership; also A.M.A. not responsible for commission or assignments, 963
Woman's Auxiliary: See Woman's Auxiliary
AMIDOPYRINE: See Aminopyrine
AMIGEN, intravenous for nutrition, [Landesman] 866—ab
use in surgical shock, [Elman] ★1176
AMINO ACIDS: See also Amigen
effects on brain tumor, 326
proteins in nutrition, [Lewis] ★200
treatment (injection) for liver cirrhosis, [Fagin] 650—ab
AMINOPHYLLINE: See Theophylline with Ethylenediamine
AMINOPYRINE addiction: Dr. James' Headache Powder, [Austin] ★911
granulocytopenia from [Varela Fuentes] 83—ab
AMIROL Color and Oil Shampoo Treatment, 307—BI
AMMONIA to bleach hair on legs, 727
AMMONIUM hydrogen sulfide, Willat Method of Heatless Permanent Waving, 471—BI; 1156—BI
AMMUNITION: See Bombs
AMNION: See Placenta
AMPHETAMINE inhalation after coronary occlusion; effect on heart, 325
necessity for motorized troops to increase performance, Germany, 1314
sulfate in gelatin, effect of for parenteral use, [Myerson] 477—ab
sulfate produces polycythemia, [Davis] 718—ab
Sulfate Treatment: See Alcoholism; Dysmenorrhea; Mental Disorders; Migraine
AMPUTATION, gas gangrene bacilli in, [Lippelt] 1346—ab
in war; "guillotine method," [Kirk] ★13
rehabilitating limbless, England, 1239
AMYLOID disease, diagnosis: congo red test, [Harmon] 1163—ab
goiter, [Walker] 867—ab
AMYOTONIA congenita, synthetic vitamin E therapy, [Blakeslee] 650—ab
AMYTAL, prevents intermittent hypothermia with disabling hyperhidrosis and chills, [Hoffman & Pobirs] ★445
sodium, and intelligence test scores, [Slater] 242—ab
ANALGESIA: See Anesthesia; Pain, relief of
ANAPHYLAXIS AND ALLERGY: See also Asthma; Eczema; Hay Fever
Allergy Electric Mask, 146—BI
Annual Forum on Allergy (fifth), 215; (program) 1409
endocrines in, [Farmer] 648—ab
hemorrhagic reaction to purified protein derivate of tuberculin, [Urbach] 1430—ab
insulin allergy, generalized symptoms, [Goldner] 1341—ab; [Watson] 1432—ab
insulin shock and leukocyte picture in patients, [Rausch] 653—ab
Sensitivity to Food: See Milk
sensitivity to house dust, 1444
sensitivity to insect bites, 871
Sensitivity to Light (Photosensitivity): See Light
sensitivity to rubber, wool, cotton and leather, cause of blisters on foot, 86
sensitization by transfusion, 490
serum sickness and, 536—E; (ephedrine and phenobarbital orally after epinephrine injection) [Engelsher] 1157—C
serum sickness, role in periarteritis nodosa, [Rich] 1249—ab
Society for the Study of Asthma and Allied Conditions, 976
ANASTOMOSIS: See Colon cancer
ANATOMY, Morbid: See Pathology
teaching reform, England, 711
ANATOXIN: See Diphtheria
ANCYLOSTOMIASIS, hookworm campaign, Ga., 1236
ANDROGENS, methyl testosterone for hypogonadism, [Pratt] 650—ab
methyl testosterone given sublingually to a eunuch, [Spence] 158—ab
prostate epithelium relation to, [Alyea & Henderson] ★1100
testosterone and methyltestosterone lingually, [Miescher] 485—ab
testosterone for enuchoidism, [Lisser] 236—ab
testosterone for new syndrome in the male, 1400—E
testosterone for prostate cancer, [Herbst] ★1116; [Keyser] 1255—ab
testosterone for Simmonds' disease, [Williams] 1250—ab
testosterone for uterine fibroids, [Lipschütz] ★171
testosterone propionate for nocturia, [Greenblatt] 75—ab
treatment for hypertension, angina pectoris, vascular disease, [Walker] 1251—ab
treatment for senile pruritus, [Feldman] 153—ab
ANEMIA: See also Anemia, Pernicious
cerebral, ligate carotid in, [Dandy] 1249—ab
chronic, from acetanilid-aminopyrine headache powders (James'), [Austin] ★911
craving for ice and, 1261
erythroblastic familial (Cooley's), pathogenesis, [Freudenberg] 83—ab
etiology, dinitrotoluene in munition workers, [McGee] 1426—ab
hemoglobin production factors in liver, [Whipple] 863—ab
Hypochromic: See also Chlorosis
hypochromic, in pregnancy, [Hamilton] 1071—ab
in nurses on wartime diet, England, 1052
in roentgen ray workers, 548
in women and children on wartime diets, England, [Mackay] 652—ab
megaloblastic, of pregnancy and puerperium, [Davidson] 570—ab
metabolism of radioactive iron, 1399—E
nutritional, with convex finger nails, 728
sickle cell, painful abdominal crises in, [Cabrera Calderín] 243—ab
ANEMIA, PERNICIOUS, neural complications—cataract and pernicious anemia, 167
of pregnancy, [Miller] 1436—ab
stomach cancer with, [Doehring] 1249—ab
ANESTHESIA: See also Anesthetists; Medicolegal Abstracts at end of letter M
administration by nurse, 324
administration, standards for small hospitals, 802
avertin in amylene hydrate, danger to patient, 324
casualty, American Hospital in Britain, [McCarthy] ★599
cocaine, convulsions and death, 166; [Stapleton] 642—C
Cyclopropane, N.N.R., (Squibb) 453
cyclopropane, oxygen consumption of brain during, 576
dangerous method: breath holding plus squeezing chest tightly, 801
ether and pentobarbital, shock in animals under, [Kendrick] 404—ab
ether, choice in prolonged operations, [Danna] 795—ab
ether, use of bulk ether; eliminating explosion hazard, [Gold] ★44; 49—E
Explosion: See also Anesthesia, ether explosion kills patient, N.J., 1049
fatal mistake from confusing procaine with percaine, 780
in thoracic surgery for pulmonary tuberculosis, 140
interdependence of function, [Bourne] ★997
intravenous, especially with pentothal sodium, [Bishop & Rudder] ★807
Iowa Anesthesiological Society proposed, 545
local, advantage of adding quinine and urea hydrochloride to solution for, 1079
local, and intercostal block for abdominal wall, 1079
local, extracting teeth; hemiplegia after, 996
local, in dentistry, procaine hydrochloride with and without adrenalin, 248
nitrous oxide, striatal syndrome with arthritis after, [de Haas] 244—ab
nupercaine local, convulsions after, [Organe] 652—ab
pentothal, intravenous in World War II, [Fulton, Hingson] 810—ab
pontocaine hydrochloride, not cause of coronary thrombosis 2 weeks later, 728
procaine hydrochloride, add to immunization preparations? 802
procaine hydrochloride, contraindicated with sulfonamides, [Matthews] 1256—ab
procaine hydrochloride infiltration for shoulder-arm pain and disability, [Travell & others] ★417
procaine hydrochloride splanchnic block in hypertension, [Albanese] 1257—ab
procaine hydrochloride with and without adrenalin, 248
role in postoperative atelectasis, [Schmidt & others] ★895
skin irritation from mask or anesthetic? 249
spinal, continuous, [Apgar] 1247—ab
subperichondrial, preceding submucous resection, 802
type used in operation on asthmatic, [Gaarde & others] ★433; (discussion by various authors) 433—ab
ANESTHETISTS, American Society of, 975
present role in Army, [Martin] ★843
ANEURYSM, aortic, causing renal ischemia, confirms Goldblatt's theory, [Hoffman] ★1028
aortic, misleading insurance advertising on, Pittsburgh exposes, 292—E
arteriography in, [Killian] 487—ab
cerebral, ligate carotid in, [Dandy] 1249—ab
intracranial arterial, in carotid canal, [Dandy] 792—ab
ANGER: See Rage
ANGINA, Agranulocytic: See Agranulocytosis, Acute
Ludwig's: See Mouth, cellulitis of floor
ANGINA PECTORIS, diagnosis; conditions commonly confused with, [Harrison] ★520
diagnosis, probable hiatus hernia or, 410
etiology, endocrine, [Fischer] 83—ab
"hypercyanotic angina," [Burgess] 78—ab
pain, procaine intramuscular infiltration for, [Travell & others] ★419
treatment, alcohol paravertebrally for, complication after, [Hirschboeck] 479—ab
treatment, androgens; estrogen, [Walker] 1251—ab
treatment, papaverine, [Elek & Katz] ★434
treatment, strophanthin injected repeatedly; advise wearing elastic abdominal belt, 168
ANGIONEUROMYOMA: See Glomus tumor
ANGIOTONIN, role in hypertension, [Page] ★757; 923—E
ANIMALS: See also Veterinarians; Zoology; under specific names of animals as Dogs; Rabbit; Rats; Sheep; etc.
anthelmintics for, warning, 217
carbon dioxide utilized by tissues, 454—E
hemophilia-like disease in, 1042—E
INDEX ANIMALIUM: death of author: C. D. Sherborn, 219
national animal health service advocated for England, 1152

ANKLE, massive edema of undetermined cause, 577
sprained, lymphedema after, 728; (due to thrombophlebitis) [Fine & Starr] 1262
ANKYLOSTOSOMIASIS: See Ancylostosomiasis
ANNALS: See Journals
ANOMALIES: See Abnormalities (cross reference)
ANOREXIA nervosa: See Appetite
ANOXIA: See Oxygen deficiency
ANTHIOMALINE: See Lymphogranuloma, Venereal
ANTI A and anti B agglutinins, [Thalhimer] ★1263
M, human isoagglutinin, [Paterson] 570—ab
ANTI-ACID Tablets: Stop-Lite Product, 67—BI
ANTIBODIES: See also Antigens (cross reference)
anti M isoagglutinogen, [Paterson] 570—ab
artificial; priority of Dr. Frank M. Wood in 1912, [Wood] 309—C
response, sulfonamide drugs fail to interfere with, [Bukantz] 68—C
response to choriomeningitis virus infection, [Milzer & Levinson] ★27
2 different types stimulated by Trichinella spiralis, 924—E
ANTIDOTES: See under names of specific drugs and poisons
ANTIFIBROMATOGENIC action of steroid hormones, [Lipschütz] ★171
ANTIFREEZE, Prestone in wine, death from drinking 575
ANTIGENS: See Antibodies; Trichinella; Whooping Cough
Artificial: See Haptens
Rh: See Rh factor
Yolk Sac: See Lymphogranuloma, Venereal
ANTI-INFECTIVES: See Disinfection; Sterilization, Bacterial
ANTIMONY potassium tartrate, Mrs. Moffat's Shoo Fly Powders, 474—MI
rheumatism after anthiomaline, [Shaffer] 152—ab
ANTIOXIDANTS in rubber masks cause of dermatitis, 127—E; [Petro] 137—ab
ANTIPNEUMOCOCCUS Serum: See Pneumococcus
ANTIPROTHROMBIN therapy (AP), 1040—E
ANTISEPTICS: See also Disinfection; Sterilization, Bacterial
N-A (also known as N-A No. 7, Vicine and Nature's Aid), 1156—BI
ANTI-SPASTHMA-OYL, 640—BI
ANTISTREPTOLYSIN titer in chronic glomerulonephritis, [Earle] 237—ab
ANTITOXIN: See Whooping Cough
ANTRUM: See Maxillary Sinus; Maxillary Sinusitis
ANURIA: See Urine suppression
ANUS: See also Hemorrhoids; Rectum
Fistula: See Fistula
infection, [Nesselrod] 481—ab
infection, relation to liquid petrolatum and saline laxatives, [Thiele] 1343—ab
ANXIETY, relation to essential hypertension, [Weiss] ★1081
AORTA, abdominal, compress to control hemorrhage; affect spinal cord, [Strauss] 314—ab
Aneurysm of: See Aneurysm
bullet wounds, and speed of death, 1080
disease (penetrating), [Harrison] ★521
AORTITIS, syphilitic (gummatous), [Gordon] 1163—ab
APHTHAE, periadenitis mucosa necrotica recurrens or lichen planus, (reply) [Kile] 492
APOLENE, 470—BI
APOLOGY, honest, and teamwork, whole nation needs, [Swaim] 982—C
APOPLEXY: See Brain hemorrhage
APPARATUS: See also Cyclotron; Diathermy; Electric; Instruments; Utraviolet Rays
for giving intravenous anesthesia, [Bishop & Rudder] ★807
for intragastric drip therapy for peptic ulcer, [Winkelstein & others] ★743
frame for bronchography, [Wishart] ★1182
Gibb's coagulometer modified to determine prothrombin [Ulin & Barrows] ★826
standard bleeding set for securing blood for armed forces, [Taylor] ★123
APPEALS procedure regarding "essential" positions for physicians, 1132
APPENDECTOMY scar and segmental enteritis, [Robbins] 1068—ab
APPENDICITIS, grave, serum plus sulfanilamide in, [Ortmann] 162—ab
in child; use of sulfanilamide, [Jacobson] 72—ab
in Cleveland, [Watkins] ★1026; (use of sulfonamides) ★1027
workers' absenteeism due to; relation to holidays, [McGee & Creger] ★1367
APPENDIX Excision: See Appendectomy
mucocele: pseudomyxoma peritonei, [Chaffee] 155—ab
APPETITE, anorexia in young child (2½ years), 1170
anorexia nervosa, pituitary-thyroid relationship, [Severinghaus] 569—ab
craving for ice and anemia, 1261
APPLES, nutritive value, [Maynard] ★696
vitamin C loss on cooking, [Kohman] ★832
White House Apple Juice, 597
APRICOTS, nutritive value, [Maynard] ★696
ARACHNIDISM: See Spiders
ARACHNODACTYLY (Marfan's syndrome), [Barron] 401—ab
ARAOZ ALFARO, GREGORIA, celebrates 50th anniversary, 854
ARC welding fumes, affect susceptibility to tuberculosis? [Gardner] 1065—ab
ARCE Foundation: See Foundations
ARCHIVES: See Journals
ARDENA Sensation Cream, 307—BI
Skin Lotion, 307—BI
ARGENTINA and Brazil, scientific relations, 387
Congress of Sanitation and Social Medicine (2nd), 857
AR-JAY Liquid Color Rinse, 391—BI
ARMED FORCES: See Army; Medicine and the War; Navy; World War
ARMS: See also Elbow; Fingers; Forearm; Shoulder; Wrist
Amputation of: See Amputation
enlargement (symmetrical) of right, 995
numbness and tingling, 249
pain and disability of; procaine infiltration for [Travell & others] ★417
ARMY: See also Soldiers; War; World War
Brazilian, medical corps, 1240
British: See also World War II
British, how fed, 548
British, Major General visits Carlisle Barracks, 541
British, school of occupational therapy, 977
Canadian, silent bronchopneumonia [Andrus] 1432—ab
Canadian, tuberculosis in, [Warner] 1063—ab
Russian: See World War II
ARMY, UNITED STATES: See also Medicine and the War
Air Service address by General David N. B. Grant, 1317
alien physicians as commissioned officers in, 119: 264—E; 120: 703
anesthesiologist, present role, [Martin] ★843
dietitians, shorten course, 1045
health, 294
jaundice outbreak in, 46—E; (circular letter no. 45 supplement), 51
malaria, fight against from 1776-date, [Simmons] ★30
medical administration school, doubles officer candidates in, 295
medical corps, status of medical students and interns, 703
medical dept. and digestive disease, [Kantor] ★254
medical dept., medals of, 1400—E
medical dept. technicians, school for, 769
Medical Library, Ciba Co. presents portraits to, 1133
Medical School, plan to improve teaching of tropical medicine, 1329
Office of Surgeon General, Division of Medical Intelligence on disease in foreign countries, 1044
ration, [Howe] ★93
Red Cross Harvard field hospital transferred to, 710
serum albumin human (concentrated), standard package, 1041—E
Surgeon General, some personnel problems of, [Hillman] ★1140
train psychologists to sift illiterate selectees, 541
typhoid vaccination in (correction), 88
ARRHYTHMIA: See also Auricular Fibrillation
premature systoles, papaverine orally effect on, [Elek & Katz] ★439
ARSENIC in hair, nails, urine in lead arsenate poisoning, [Kilgore & Rhoads] ★1125
Spring Water, 225—BI
ARSENICALS: See also Arsenoxide; Arsphenamine Bismarsen; Mapharsen; Neoarsphenamine
bismuth compounds combined with, [Kahn & Becker] ★338 (discussion) 346
toxicity, sodium thiosulfate for, (Council report) 124
ARSENOXIDE treatment, mortality in, [Chana C.] 723—ab
ARSPHENAMINE: See also Arsenicals; Arsenoxide; Neoarsphenamine
Bismuth Compound: See Bismarsen
toxicity, effect on bismuth hepatitis; San Quentin prison, [Kulchar & Reynolds] ★343
ART: See also Physicians, avocations
Lane collection of medical prints at Yale, 461
Portraits: See Portraits
Shoemaker's cartoon in Chicago Daily News tribute to physician 699—E
ARTERIES: See also Arteriosclerosis; Blood Vessels; Veins
Aneurysm: See Aneurysm
carotid, ligate in inadequate brain circulation; Matas test, [Dandy] 1249—ab
carotid, thrombosis of, [Fracassi] 486—ab
Coronary: See also Angina Pectoris
coronary insufficiency and hypotension, [Ratschow] 992—ab
ARTERIES—Continued
coronary insufficiency (chronic), intrapericardial injection for, [Rakov] 231—ab
coronary, ligation of descending branch; report 30 years later, [Bradbury] 1425—ab
Coronary, Occlusion: See also Thrombosis, coronary
coronary occlusion (acute), cardiac efficiency, prognosis, [Master & others] ★1271
coronary occlusion (acute), factors causing immediate death after, [Woods] 312—ab
coronary occlusion, amphetamine inhalation effect on heart, 325
coronary, occlusion fatal in healthy (?) soldier, [Sterling] 1067—ab
coronary occlusion, more frequent in diabetics, [Lisa & others] ★192; (correction) 384
coronary occlusion (multiple) in myocardial infarction, [Rathe] ★99
coronary occlusion relation to trauma, terms misleading, [Master] 392—C; (reply) [Sigler] 1335—C
Disease (obliterative): See Thromboangiitis obliterans
Inflammation: See Arteritis; Periarteritis
meningeal, hemorrhage in children after trivial head injury, [Lanigan] 722—ab
peripheral disease, oscillometric diagnosis, [Christensen] 161—ab
Pressure in: See Blood Pressure
pulmonary, bullet wounds and speed of death, 1080
roentgen study in aneurysms, [Killian] 487—ab
ARTERIOGRAPHY: See Arteries, roentgen study
ARTERIOSCLEROSIS: atherosclerosis and cholesterolemia, [Liebig] 992—ab
atherosclerosis and dental caries relation to diet deficiency, [Davis] 68—C
atherosclerosis in chronic glomerulonephritis, [Steiner] 232—ab
hypertension interrelated, [Scott] ★1
in diabetics [Lisa & others] ★192; (correction) 384
in diabetics (juvenile) surviving 20 years, [Eisele] ★188
obliterans, effect of dicoumarin, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Butsch & Stewart] ★1025
renal arteriolar, in hypertension, [Simonds] ★89; [Zeisler] 786—C; (reply) [Simonds] 786—C
treatment, papaverine in, [Elek & Katz] ★434
ARTERITIS: See also Periarteritis
of large vessels in child as sign of congenital syphilis, [Torres-Umaña] 992—ab
ARTHRITIS: See also Rheumatism
after nitrous oxide anesthesia with striatal syndrome, [de Haas] 244—ab
Atrophic: See Arthritis, rheumatoid
Hypertrophic: See Osteoarthritis
rheumatoid, atypical form: intermittent hydrarthrosis, 578
rheumatoid, electropyrexia for, [Osborne] 75—ab
rheumatoid, Felty's syndrome, [Lockie] 646—ab
rheumatoid, gold and vitamin D used simultaneously for, 871
rheumatoid, gold salts in, 220
Spinal: See Spine
Treatment: See also under other subheads
treatment, estrogen, 411
treatment, oxygen subcutaneously, 165
tuberculous, ultraviolet ray therapy (Council report) ★622; ★623
ARTHUS Phenomenon, purified protein derivative reaction, [Urbach] 1430—ab
ARTICLES: See also Journals
reprints requested for Russian physicians, [Razran] 226—C
ARTICULATIONS: See Joints
ASCITES: See also Edema
flatulence precedes, in liver cirrhosis, [Mannheimer] 553—C
ovarian fibroma with: Meigs's syndrome, [Ritvo] 718—ab
ASCORBIC ACID: See Acid
ASHER, CASH, chiropractor, antivaccinationist pamphlet, 207—E
ASPARAGUS, ascorbic acid values, room temperature affects, [Kohman] ★833
nutritive value, [Maynard] ★696
ASPERMATOGENESIS: See Spermatozoa
ASPHYXIA: See also Carbon Monoxide poisoning
advanced, resuscitation in; positive and negative pressure, [Thompson] 569—ab
physiology of drowning, 871
resuscitation with inert gas, [Birnbaum] 318—ab
ASPIRATION: See Testis
ASPIRATOR, Wangensteen: See Peptic Ulcer
ASPIRIN: See Acid, acetylsalicylic
ASPIROL TABLETS, 552—BI
ASSAULT AND BATTERY: See Medicolegal Abstracts at end of letter M
ASSOCIATION: See also American Association; American Medical Association; list of Societies at end of letter S; Medicolegal Abstracts at the end of letter M

ASSOCIATION—Continued
of American Medical Colleges (meeting), 464; (recommendation on premedical work; M.D. 5 years after high school) 850—OS; (plan to improve teaching of tropical medicine) 1329
of Life Insurance Medical Directors of America (program), 547
of Military Surgeons (meeting), 634; (elections) 1238
ASTHENIA: See also Fatigue; Myasthenia
neurocirculatory, Crile's bilateral adrenal denervation, 411
neurocirculatory, endocrine origin, [Díaz Mindurry] 1257—ab
neurocirculatory, oscillometric test of soldier's fitness, [Christensen] 798—ab
neurocirculatory relation to hypertension, [Weiss] ★1085
ASTHMA, Besol, 1334—BI
cardiac, differentiation from bronchial type, and sighing dyspnea, [Browning] 1343—ab
Hasebroock's (E. W.) PERMANENT RELIEF FROM . . . , 471—BI
patient good surgical risk? [Gaarde & others] ★431
Society for the Study of, 976
status asthmaticus, prevention of death; value of bronchoscopy, [Bases] 398—ab
treatment, epinephrine and aminophylline, 1261
treatment, ethylene disulphonate launched as cure, 842—E
treatment, inhaling racemic epinephrine, especially vaponefrin, asthmanefrin, neosol, etc. (Council report), 287
treatment, surgical procedure, 86
ASTHMANEFRIN, (Council report), 287
ATABRINE, American vs. German, 842—E
as gametocides, [Aguilar Meza] 320—ab
dihydrochloride treatment of giardia enteritis in a nursery home, [Ormiston] 991—ab
treatment of malaria, 385; (National Research Council—WPB report), 1043
U. S. government places record order for; cost of atabrine vs. quinine, 459
ATAXIA, Locomotor: See Tabes Dorsalis
ATELECTASIS: See Lungs collapse
ATHEROMATOSIS of mitral valve, [Hellwig] 312—ab
ATHEROSCLEROSIS: See Arteriosclerosis
ATHLETE'S Foot: See Dermatophytosis
ATHLETICS: See also Exercise
bradycardia (rate under 40) in athletes, especially in runners, [White] 642—C
sudden death after test game due to persistent thymus, [Cluver] 1161—ab
Swimming: See Swimming
ATLANTIC City Session: See American Medical Association
AT-LETES Foot Liquid Balm, 67—BI
ATMOSPHERE: See Air
ATOMS, energy at center of sun, 195—ab
"Smashing": See Cyclotron
ATROPHY: See also Pyelonephritis, atrophic; Stomach inflammation; Tongue
Muscular: See also Dystrophy, muscular
muscular, skeletal, [Solandt] ★511
Optic: See Nerves, optic
ATROPINE and atropine papaverine, use in reflex pulmonary atelectasis, [de Takats] ★686; (suggest combining atropine with potassium iodide) [Schulman] 1157—C
sulfate, effect on electrocardiogram, [Hartwell] 237—ab
sulfate, effect on intestinal motility, [Puestow] ★907
to counteract reaction from injecting internal hemorrhoids with sylnazol, 167
AUDIOMETER, Maico, 205
5 years of progress in field of, (Council report) ★1213
minimum requirements, (Council report) 838
AUDITORY Canal: See Ear
Tube: See Eustachian Tube
AUREX Model hearing aid, 535
AURICULAR FIBRILLATION in rheumatic heart disease, [Kossmann] 646—ab
AUROTHERAPY: See Gold treatment
AUSTRALIAN Central Medical Coordination Committee, Dr. Morris in U. S. on behalf of, 1314
medical outlook, 1405—OS
AUTOMOBILES, accidents, killing people on the roads, England, 636
accidents, National Safety Council report, 61
accidents, prevention, ophthalmologist's place in, driver's license examination; visual standards, [Selling] ★261
Gasoline Rationing: See Gasoline
identification plates for blackouts, Medical and Surgical Relief Committee, 136
physicians' in blackouts: cars equipped with Army blackout lighting devices, 248
repossession, of persons in military service, (Bureau report), 540
Tire Rationing: See Rubber tires
AUTOPSIES: See Medicolegal Abstracts at end of letter M
AVERTIN: See Anesthesia
AVIATION, Aero Medical Association, 633
air ambulance service (Middle East), 977; (Royal Air Force), 1132
Air Raids: See Air Raids
AVIATION—Continued
air screw injuries in aircraft apprentice, [Howkins] 570—ab
airsickness in Navy personnel, 1309—E
American Flying Services Foundation, 209
blood circulation and sympathetic in high altitude flying, [Meier-Müller] 1073—ab
blood pressure at high altitudes (30,000 feet), 578
flight surgeons' assistants, 1221
Grant (D. N. B.) of U. S. Army Air Service, address by, ★1317
medical examiners at School of Aviation Medicine, 211; 295
medicine, Council discusses, 43
naval, heart murmurs in candidates, [Mitchell] 404—ab
otolaryngologic problems in fliers, [Carson] ★4; 1309—E
parachute jumps (delayed), physiology of, 1311—E
physiologists at School of Aviation Medicine, Randolph Field, Tex, 377; 541; 1045; 1133
Royal Air Force (miniature mass roentgenography in), [Trail] 158—ab; (ambulance service) 1132
U. S. Navy Medical Corps and, [McIntire] ★1136
AVITAMINOSIS: See Vitamins deficiency
AVOCATIONS: See Physicians
AWARDS: See Prizes

B

"B" blood substance cause of reactions after plasma, 206—E; [Levine & State] ★275; [Klendshoj] 314—ab; [Thalhimer] ★1263
BACILLUS: See Bacteria
BACK: See Spine
Pain in: See Backache
BACKACHE: See also Sciatica
low, "combined operations" (laminectomy plus tibia graft) in, [Ghormley & others] ★1171
low, sign of defective intervertebral disk, [Dandy] ★605
roentgen study, [Brav] 477—ab
BACON Lectures: See Lectures
BACTEREMIA: See Staphylococcemia
BACTERIA: See also Bacteriophage; Pneumococcus; Staphylococcus; Streptococcus; Tubercle Bacillus; under names of organs as Bile Ducts; Duodenum; Ear; etc.
Abortus Infection: See Brucellosis
Coli: See Escherichia coli
Culture: See also Dysentery, Sonne
culture, penicillin in, [Craddock] 82—ab
flexneri urinary infection in pregnancy, [Diddle] 988—ab
in Blood: See Blood, Staphylococci
Infection: See Infection
isoagglutination (irregular) due to, [Davidsohn] ★1291
Proteus: See Proteus
Pyocyaneus: See Pseudomonas aeruginosa
Salmonella: See Salmonella
shigella, carriers, [Vaccaro] 407—ab
Welchi: See Clostridium welchi
BACTERICIDES: See also Disinfectants; Germicides
penicillin, [Florey] 482—ab
BACTERIOLOGY, research, Seaman fund for by New York Academy, 382
seminars, Baltimore, 632
Society of American Bacteriologists cancels meeting, 1238
BACTERIOPHAGE treatment of bacillary dysentery, [Compton] 319—ab
treatment of staphylococcemia, [MacNeal] 72—ab
BACTERIUM: See Bacteria
BAKER, NORMAN, denied Supreme Court review, 1147
BAKERS, pastry, sugar caries in, [Schour & Sarnat] ★1201
BAKING: See Bread
Soda: See Sodium bicarbonate
BALDNESS: See Alopecia
BALL and socket screw for treating fractures, [Hoffmann] 1166—ab
pessaries, 871
BALLARD, JAMES F., 50 years a medical librarian, 626—E
BANANAS, ripeness vs. nutritive value, [Kohman] ★833
BANG'S Disease: See Brucellosis
BARBITURATES: See also Amytal; Pentobarbital sodium; Phenobarbital
amphetamine-sulfate in psychiatric conditions, [Davidoff] 239—ab
Elixir Medinal, N. N. R., (Schering & Glatz) 453
BARIUM sulfide depilatory formula, 727
BARKLEY Bill: See Laws and Legislation
BARLEY, nutritive value, [Wilder & Keys] ★534; [Maynard] ★694
BARNARD Hospital Lecture: See Lectures
BAROMETRIC Pressure: See Humidity
BARRÉ-Guillain Syndrome: See Guillain
BASEDOW'S Disease: See Goiter, Toxic
BASIC Science Act: See Medical Practice Act
BASLE Nomina Anatomica: British "revision," 658
BATH: See also Swimming
foot, sodium thiosulfate ("Hypo") for athlete's foot, [Gould] 1057—C
Odoform, 470—BI
Turkish bath outfit: Perspir-ator, 146—BI
BATTLE CREEK Sanitarium now Percy Jones General Hospital, 1220
BAUER & BLACK awarded Army and Navy E, 301
BAUM'S Ace Brand Corn, Callous (?) and Bunion Salve, 225—BI
BAUMHAUER, CHARLES A., cited for gallantry in action, 1132
BAYLOR University adopts accelerated program, 777
BCG: See Tuberculosis, immunization
BEANS, all types, nutritional value, [Maynard] ★694
ascorbic acid values, room temperature effect on, [Kohman] ★833
BEARD, absence in American Indian, pseudo hypoparathyroidism, [Albright] 155—ab
BEAUTY Culture: See Cosmetics; Hair
Glo Cosmetics, 307—BI
House Cosmetics, 391—BI
BED REST (7 to 9 days) after childbirth, 631; 801; 1147
BEDDING: See Blankets
BEDROOM, temperature for, (Dr. Bristol's subcommittee report) ★371; 376—E
BEDWETTING: See Urine incontinence
BEE BEE'S, 225—BI
BEER, single large intake affect fetus? 88
BEES, stings, [Jex-Blake] 483—ab, 1256—ab
BEHAVIOR: See also Personality
disorders in children after pertussis; [Lurie & Levy] ★890
disorders in children and pneumoencephalography, [Amatruda] 720—ab
disorders in children, electroencephalogram in, [Secunda] 78—ab
BELCHING: See Eructation
BELFIELD Lecture: See Lectures
BELGIUM, total population under Hitler's rule, 138
BELL Lecture: See Lectures
BELLADONNA, functional bowel distress after poliomyelitis, 167
BELT: See Abdominal Belt; Corset
"BENDS": See Caisson Disease
BENZALDEHYDE, paradimethylamino, test for sulfonamides in urine, [Monto] 239—ab
BENZEDRINE Sulfate: See Amphetamine
BENZENE poisoning from making synthetic rubber, [Wilson] 1252—ab
poisoning, oral symptoms, [Schour & Sarnat] ★1204
BENZYL benzoate treatment of scabies, [Gordon] 241—ab
BERIBERI heart disease and pulmonary embolism, [Hussey] 400—ab
heart in infant fed on boiled human milk; thiamine for, [Rascoff] ★1292
BERKOW'S Chart: See Burns
BERNARD Lectures: See Lectures
BERNARD-Horner syndrome: See Horner's syndrome
BESOL, 1334—BI
BETTER Business Bureau of Pittsburgh exposes insurance advertising, 292—E
BEVERAGES: See also Coffee; Milk; Water
Alcoholic: See Alcohol; Beer; Wine
carbonated, sweetened, nutritional aspects, (Council report) 763
BEZOLD'S Abscess: See Abscess
BIBLE quotation, [Brav] 68—C
BICYCLE, accidents, National Safety Council report, 62
BIERMER'S Anemia: See Anemia, Pernicious
BIGGAM, Major Gen. A. G., of British Army visits Carlisle Barracks, 541
BILE in Blood: See Blood
secretion, Carter's Little Liver Pills activate? 1219—E
secretion, Dehydrocholic Acid, N. N. R., (Lakeside) 1307
secretion, Sodium Dehydrocholate, N. N. R., (Lakeside) 1307
BILE DUCTS: See also Biliary Tract; Gallbladder; Liver
common, bacteriology of, before choledochotomy, [Elkeles] 1162—ab
BILIARY TRACT: See also Bile Ducts; Gallbladder; Liver
chronic typhoid carriers, [Coller] 1070—ab
BILLINGS Lecture: See Lectures
BIOCHEMISTRY, new journal: *Archives of Biochemistry*, 464
BIOLOGIC PRODUCTS: See Antitoxin (cross reference); Serum; Vaccine
BIOLOGICAL *Abstracts*: See Journals
Photographic Association, Inc., 61
BIOPSY: See also Liver
punch, 492
BIOTIN, [Elvehjem] ★1394
BIRTH: See Labor
Multiple: See Twins
Premature: See Labor, premature
Stillbirth: See Stillbirth

BIRTH CONTROL: See also Medicolegal Abstracts at end of letter M
amendment rejected, Mass., 974
contraceptive information, West Virginia Medical Association adopts resolution, 136
contraceptive: intracervical soft rubber pessary, 412
M.D. Medicated Douche Powder, 641—BI
U. S. Supreme Court asked to declare unconstitutional contraceptive laws, 854
"Safe Period": See Menstruation
BISMARSEN treatment of syphilis, [Beerman and others] ★333; (discussion) 346
BISMUTH Arsphenamine Sulfonate: See Bismarsen
compounds in syphilotherapy, [Kahn & Becker] ★338 (discussion) 346
toxicity, hepatitis at San Quentin prison, [Kulchar & Reynolds] ★343
BITCHES, sexual sterilization by x-rays, 577
BITES: See also Mosquitoes; Spiders
Chiggers: See Trombidiosis
human, [Boyce] 240—ab
BLACK Strand Hair Coloring, 307—BI
BLACKOUTS, automobile identification plates for use in, 136
killing people on roads, England, 636
operating doctors' cars during: Army blackout lighting devices, 248
BLADDER: See also Urinary System
Calculi from Sulfonamides: See Urinary Tract
cancer, 5 year control by radon implants, [Barringer] ★909
cystocele, ball pessaries for, also other types suggested, 871
inflammation, interstitial cystitis in girl, 87; (reply: psychotherapy) [Aring] 802
lesions from radium therapy of cervix cancer, [Chydenius] 1074—ab
tumors, primary lymphosarcoma, [Kreutzmann] 795—ab
BLANCHING frozen and canned foods, effect on vitamin content, [Kohman] ★834
BLANE Medal: See Prizes
BLANKETS for hospitals purchased by Russian War Relief, 849
BLAST: See Bombs
BLEB: See Blisters
BLEEDING: See Hemorrhage
BLINDNESS: See also Vision
"blind staggers," selenium poisoning, [Shils & McCollum] ★618
Brazilian Congress for Prevention of, 1240
Color: See Color Blindness
National Society for Prevention of, glaucoma prize, 1238
new camp for war blinded British prisoners in Germany, 302
Night: See Night Blindness
prevention, Pan American code for, 140
state council for blind, activities, Fla., 1326
BLISTERS, hereditary epidermolysis bullosa in soldier, [Mansur] ★1122
on feet and composition of shoes: sensitivity to rubber, wool, cotton and leather, 86
BLOATING: See Flatulence
BLOOD: See also Medicolegal Abstracts at end of letter M
albumin (human), clinical use, 1041—E; [McIntire] 1137—ab
albumin (serum) relation to tissue protein, 455—E
androgens, in prostate cancer, [Herbst] ★1116
Bacteria in: See Blood, staphylococci
Bank: See Blood Transfusion
bile in, in juvenile intermittent icterus (cholemia), [Krarup] 320—ab
calcium, humoral control of internal secretion, 456—E
carbon monoxide in, duration after poisoning, 168
carotenemia in mother and breast-fed child, [Almond] 1256—ab
Cells: See also Erythrocytes; Leukocytes
cells count in cyclotron workers, [Warren] 865—ab
cholesterol (serum) in chronic glomerulonephritis, [Steiner] 232—ab
cholesterolemia and atherosclerosis, [Liebig] 992—ab
Circulation: See also Blood volume; under the names of specific organs as Brain; Kidneys
circulation and tissue extracts, 326
circulation, in high altitude flying, [Meier-Müller] 1073—ab
circulation, injected serum retained in, [Sharpey-Schafer] 319—ab
circulation, measuring, 657
circulation obstruction causes arm to enlarge, 995
circulation time (through entire body), 1350
circulatory overloading after rapid intravenous injections, [Sharpey-Schafer] 1433—ab
citric acid in serum sign of hepatic parenchyma lesion, [Somolinos] 486—ab
Clot: See Blood coagulation; Thrombosis
Coagulation: See also Blood, prothrombin in
coagulation and synthetic vitamin K, [Stein] 242—ab
BLOOD—Continued
coagulation, dicoumarin prolongs, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Bollman & Preston] ★1021; [Butsch & Stewart] ★1025; 1040—E
concentration (shocklike) from dysentery toxin, 1310—E
Conservation: See Blood preservation
Count: See Blood cells
diastase in pancreatic disease, [Pratt] ★175
disease, bone marrow transfusion in, [Sánchez Yllades] 723—ab
disease, throat and nose signs, 1152
disease, variations in multiple sternum marrow samples, [Reich] 1427—ab
Donors: See Blood Transfusion
Dyscrasia: See Agranulocytosis, Acute; Anemia; Granulocytopenia
Flow: See Blood circulation
food deficiencies effect on, 386
gold (colloidal) reaction in diagnosing liver diseases, [Lavin] 653—ab
groups, A and B substances cause of reactions after plasma transfusions, 206—E; [Levine & State] ★275; [Klendshoj] 314—ab; [Thalhimer] ★1263
groups, determination from dried serum drops, [Wagner] 1346—ab
groups; inheritance of, 87
groups, isoagglutinin anti M, [Paterson] 570—ab
groups, isoagglutinins (high titer) universal donor with, [Aubert] 158—ab
groups, isoagglutinins (irregular), [Davidsohn] ★1288
groups, isoagglutinogens (hereditary) 30 different ones in cattle, 536—E
Groups O (universal donor): See Blood Transfusion donor
groups, specific properties, polysaccharides as vehicles of, [Kossiakow] 160—ab
groups, value of specific hemolysin vs. agglutination methods, [Willenegger] 1437—ab
hematologic values for normal healthy men, [Hamre] 399—ab
Hemoglobin: See Hemoglobin
in Urine: See Hematuria
Infusion via bone marrow: See Bone Marrow
Loss of: See Hemorrhage
Menstrual: See Menstruation
phosphatase (serum "acid") in prostate cancer, [Herger] 74—ab; [Alyea & Henderson] ★1099; [Nesbit & Cummings] ★1109; [Gutman] ★1112; [Herbst] ★1116
phosphatases (serum), [Garcia Romeu] 159—ab
picture, "dotted curtain" type in cancer, [Bolen] 1252—ab
picture, hemograms in pulmonary tuberculosis, [Stobie] 313—ab
picture in chronic mountain sickness, [Hurtado] ★1278
Plasma: See Blood Transfusion; Serum; and subheads under Blood
Platelets: See also Purpura, thrombopenic
platelets, sulfonamides effect on thrombocytes, [Lindelöf] 487—ab
preservation, protecting blood obtained from donor, [Taylor] ★122
preservation, sulfathiazole in stored plasma, [Novak] 316—ab
Pressure: See BLOOD PRESSURE
Procurement Project: See Blood Transfusion
Proteins: See also Blood albumin
proteins, hypoproteinemia, 455—E
proteins, hypoproteinemia, hemoglobin production in liver, [Whipple] 863—ab
proteins, hypoproteinemia in surgical shock, plasma and amigen for, [Elman] ★1176
proteins (plasma) concentrated solution for shock, [Muirhead] 404—ab
proteins (plasma) concentration after hemorrhage [Beattie] 1435—ab
proteins (plasma), osmotic pressure of, [Zeisler] 786—C; (reply) [Simonds] 786—C
prothrombin and vitamin K in hepatic diseases, [Bechgaard] 571—ab
prothrombin, deficiency in newborn, [Butt] ★1039
prothrombin, test for, modified Gibb's coagulometer, [Ulin & Barrows] ★826
prothrombin test in accurate diagnosis in jaundice, [Abbott] 398—ab
prothrombin time, dicoumarin prolongs, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Bollman & Preston] ★1021; [Butsch & Stewart] ★1025; 1040—E
sedimentation rate increased by dicoumarin, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Bollman & Preston] ★1021; [Butsch & Stewart] ★1025
Spitting up: See Hemoptysis
staphylococci isolated from, bacteriophage treatment, [MacNeal] 72—ab
Sugar: See also Diabetes Mellitus
sugar, hypoglycemia, angina pectoris in, [Fischer] 83—ab
sugar, hypoglycemia, convulsions and unconsciousness from, 872
BLOOD—Continued
Sugar, Hypoglycemic Shock Therapy: See Dementia Precox; Insulin shock
sugar, thymus hormone effect on, [Bomskov] 1258—ab
sulfadiazine levels before hematuria, [Wright & Kinsey] ★1353
sulfanilamide concentration in, [Pearce] 982—C
thiocyanate level as index of toxicity in treating hypertension, [Russell & Stahl] 119: ★1177; [Mandelbaum] 120: 147—C; [Ayman] 147—C; [Wald] 227—C; [Crockett & Moench] 982—C
tonic, Herolin, 640—BI
Transfusion: See BLOOD TRANSFUSION
Types; Typing: See Blood groups
ultraviolet irradiation, [Miley] 1063—ab
ultraviolet irradiation (Knott technic) in pyogenic infections, [Miley] 990—ab
Universal: See Blood Transfusion
uric acid determinations, cyanide solutions for, 1169
vitamin A in and dark adaptation, [Haig] 237—ab
vitamin C determination, methylene blue method, [Castro Mendoza] 1257—ab
vitamin C (plasma) level to detect subclinical scurvy, [Rinehart] 1430—ab
Volume: See also Blood circulation
volume, relation to sodium chloride in diet, [Krauel] 653—ab
volume restoration, estimating need for: use of head down feet up position, [Henderson] 1414—C
volume (total), determining, 657
BLOOD PRESSURE, at high altitudes (30,000 feet), 578
effect of dangerous anesthetic method: breath holding plus squeezing chest tightly, 801
head down-feet up position to measure output of blood in veins of arm, [Henderson] 1414—C
high arterial, mechanism of, [Page] ★757
high, chronic, with renal arteriosclerosis in diabetic, [Lisa & others] ★192; (correction) 384
high essential, androgens and estrogens for, [Walker] 1251—ab
high essential in hypothyroidism, thyroid extract contraindicated? 1169
high essential, psychosomatic aspects, [Weiss] ★1081
high experimental: therapeutic measures evaluated by Goldblatt, [Dock] 147—C; [Calder] 309—C
high, Goormaghtigh cells in kidney, [Kaufmann] 989—ab
high, hypertensive-albuminuric pregnancy, [Tillman] ★587; (discussion) 598
high, in pregnancy toxemia, [Dieckmann & Kramer] ★590; (discussion) 598; [Eastman & Whitridge] ★729
high, nephrectomy and, [O'Conor] ★582
high, papaverine for, [Elek & Katz] ★434
high, pathogenesis, pyramid diagram showing, [Weiss] ★1083
high, peripheral facial paralysis in, [Merwarth] 649—ab
high portal, portal thrombosis in, [Reich] 648—ab
high, potassium thiocyanate in, [Hawke] 566—ab; [Mola] 868—ab
high, potassium thiocyanate in: toxicity, [Mandelbaum] 147—C; [Ayman] 147—C; [Wald] 227—C; [Crockett & Moench] 982—C
high, pyelonephritis relation to, [Taylor] 235—ab; [Shure] 720—ab
high, relation to indicanuria? Best diet for hypertensive patient, 411
high, renal blood flow in, [Steinitz] 798—ab
high renal disease and arteriosclerosis, [Scott] ★1
high, renal disease (unilateral) and renal vascular changes, [Friedman] 316—ab
high, renal; incidence, nephrectomy cures, [Ratliff] 794—ab
high, renal ischemia from aortic aneurysm; confirms Goldblatt's theory, [Hoffman] ★1028
high, renal, Markle Foundation research grant for, 545
high, renal pathologic changes and glomerulonephritis, [Simonds] ★89; [Zeisler] 786—C; (reply) [Simonds] 786—C
high, semilunar splanchnic block in, [Albanese] 1257—ab
high, splanchnicectomy and sympathetic ganglionectomy for, [Woods] 317—ab
low, and coronary insufficiency, [Ratschow] 992—ab
low, essential and postural types, [Durant] 568—ab
myocardial infarction, [Rathe] ★99
normal, cold pressor test in, [Feldt] 231—ab
reduced, and pyrogenic reaction in hypertension, [Chasis] 237—ab
renal pressor system, 923—E
BLOOD TRANSFUSION, air entry through transfusion sets, [Devas] 1071—ab
banks, baby blood bank (Irwin), San Francisco, 1326

BLOOD TRANSFUSION—Continued
banks for blood and plasma, (New York) 776; (U. of Illinois) 1048; (Cuba) 1329
banks, plasma, (Michigan) 59; (Palestine) 64; (district society opens, Mass.) 299
bone marrow transfusion in blood diseases, [Sánchez Yllades] 723—ab
bone marrow transfusion (sternal), 220; [Doud & Tysell] ★1212
convulsions in mother and child after, 1443
donor, advisable to return waste erythrocytes to? 727
donor: protection, selection, frequency of donations, [Taylor] ★120
donor service of American Red Cross, procuring blood for, [Taylor] ★119; 384; 627; 727
donor, syncopal reactions (fainting) in, [Williams] 483—ab
donor, tetany in, [Frazer] 483—ab
donor (universal) blood with anti A and B substance added, [Klendshoj] 314—ab
donor (universal "safe") blood in exsanguinating hemorrhage, [Wiener] 232—ab
donor (universal), use of blood from, [Bucher] 797—ab
donor, universal with high titer isoagglutinins, [Aubert] 158—ab
for obstetric hemorrhage and shock, [Sheehan] 158—ab
for shock in coronary thrombosis, 1350
for shock in uterine inversion, [McLennan & McKelvey] ★679
free, Swift bequest provides, N. Y., 708
hazards, [Whitby] 82—ab
in thrombopenic purpura complicating pregnancy, [Urbanski & Hunter]★754
plasma: effective substitute for blood in hemorrhagic shock, 1054
plasma, in severe burns, [Harkins] 1344—ab
plasma, in surgical shock, [Elman] ★1176
plasma, Levine-State intradermal test to predict reaction to, 206—E; [Levine & State] ★275; [Klendshoj] 314—ab; [Metzger] 714—C; [Sophian] 860—C
plasma or serum (pooled), dangerous? [Thalhimer] ★1263
plasma, simplified method in emergencies, [Pitman] ★195
plasma transfusion not indicated for diabetic acidosis, 658
plasma (unpooled liquid), [Weinstein] 77—ab
reinfusion of blood in ruptured ectopic pregnancy, 140
sensitization by, 490
transfused erythrocytes, fate of, [Willenegger] 1437—ab
transfused erythrocytes in blood of recipient, [Krüpe] 160—ab
BLOOD VESSELS: See also Arteries; Capillaries; Veins
Disease: See also Thromboangiitis obliterans
disease (peripheral), androgens and estrogens for, [Walker] 1251—ab
disease (peripheral), effect of dicoumarin, [Allen & others] ★1009; [Wright & Prandoni] ★1017; [Butsch & Stewart] ★1025; 1040—E
disorders (peripheral), clinical examinations, [Phillippedes] 1258—ab
vascular phase of chronic diffuse glomerulonephritis, [Horn] 719—ab
BLUEBERRY, Roberta Blueberry Juice, 1156—BI
BNA: See Basle Nomina Anatomica
BOARD: See under specific names as American Board; National Board; State Board
Certifying: See American Board
of Education: See Schools
of Health: See Health
of Trustees: See American Medical Association
BODY: See also Constitution
British figure improved by rationing, 549
Build: See Constitution
composition of, 587—ab
Development: See Growth
Heat Production: See Metabolism, basal
height and weight of juvenile diabetics surviving 20 years, [Eisele] ★189
height and weight of Toronto school children, 768—E
height, increasing, Pandiculator Co., 1244—BI
height, Short Stature and Height Increase, 67—BI
mineral composition of the body of fetus, newborn and adult, [Macy] ★35
Organs of: See Organs
surface area: skin lesion size, Berkow's chart, [Rothman & others] ★805
Temperature: See Fever; Temperature, Body
Weight: See also Body, height and weight; Emaciation; Fetus; Obesity
weight, effect of vitamin E, [Stähler] 486—ab; 487—ab
weight; what is normal monthly gain for pregnant woman? 1443
weight, underweight, insulin for, [Greco] 477—ab
BOECK'S Sarcoid: See Sarcoidosis
BOILS: See Carbuncle; Furunculosis
BOLK, 470—BI
BOMBS: See also Air Raids; Explosion
blast injuries, 1398—E
loads, [McIntire] 1137—ab
new German phosphorus, 636
lower pressure phase of blast, [Latner] 1436—ab
BONE MARROW: See also Osteomyelitis
blood transfusion in blood diseases via, [Sánchez Yllades] 723—ab
blood transfusion via sternum, 220
lesions, radioactive strontium for, 1350
mapharsen infusion via, pulmonary fat embolism after, [Wile] 794—ab
massive continuous infusions via sternum, [Doud & Tysell] ★1212
Puncture: See Sternum
sternal, multiple samples, variations in, [Reich] 1427—ab
BONES: See also Cartilage; Joints; Orthopedics; Osteo—; Spine; under names of specific bones
cancer, metastatic from prostate, [Alyea & Henderson] ★1100; [Nesbit & Cummings] ★1110; [Gutman] ★1113; [Herbst] ★1116
citric acid in, 208—E
defects, plugging for osteomyelitis, [Henschen] 1437—ab
Dislocation: See Patella
Dystrophy: See Osteodystrophy, renal
Epiphysis: See Epiphyses
Fracture: See Fractures
graft for low back and sciatic pain, [Ghormley & others] ★1171
granuloma (eosinophilic or solitary), [Green] 315—ab
growth (new) due to cold water in ears, [Fowler] 1340—ab
lesions, radioactive strontium for, 1350
Melorheostosis: See Melorheostosis
skeletal changes and fetal erythroblastosis, [Follis] 316—ab
Tuberculosis: See also Osteoarthritis, tuberculous
tuberculosis, ultraviolet ray therapy (Council report) ★622; ★623
BONKORA, 640—BI
BOOKS: See also Library; Book Notices at end of letter B
Flint (J. M.) presents original treatises to Yale, 461
physician (Dr. F. C. Irving) receives Houghton Mifflin award, 974
BORG Prone Pressure Timing Device, 373
BORON, nutritional element, [Shils & McCollum] ★618
BOSTON, Cocoanut Grove fire disaster, [Faxon & Churchill] ★1385
fire disaster, plasma used in, 1223
Psychoanalytic Institute opened, 707
BOTTLES: See also Glass containers
hot water, conservation; temperature of water; use of ice, 847
BOWELKLEEN, 640—BI
BOWELS: See Intestines
BOYS: See Adolescence
BRACHIAL PLEXUS, compression, intramuscular procaine infiltration for, [Travell & others] ★419
paralysis after injecting antitetanic serum, [Floyd] 240—ab
BRADYCARDIA (rate under 40) in athletes, especially runners, [White] 642—C
BRAIN: See also Cranium; Head; Nervous System
abscess after typhoid; surgical removal, [Odom] 792—ab
abscess, otogenic cerebellar, [Asherson] 1436—ab
circulation (inadequate), ligate carotid in; Matas test, [Dandy] 1249—ab
contusion, coup-contrecoup mechanism, [Courville] 154—ab
deterioration in organic epilepsy, [Arieff] 156—ab
Disease: See Epilepsy
electroencephalogram in child behavior disorders, [Secunda] 78—ab
electroencephalogram in epilepsy; heredity of brain waves, [Lennox] ★449
electroencephalography laboratory at Stanford, 545
Hemorrhage: See also Encephalitis, hemorrhagic
hemorrhage and resuscitation of newborn, [Gill] 1444
hemorrhage in migraine, [Dunning] 792—ab
hemorrhage (massive) into tumor; rapidly fatal, [Globus & Sapirstein] ★348
hemorrhage of newborn, management, 1079
hemorrhage, seasonal frequency of deaths from apoplexy, 410
Inflammation: See Encephalitis; Encephalitis, Epidemic; Meningoencephalitis
injuries, rules for treating, [Mock & Mock] ★498
lesions after neoarsphenamine therapy [Courville] 1431—ab
lightning shock effect on, 577
oxygen consumption during anesthesia, especially cyclopropane, 576
pathology, Russian physicians request reprints on, [Razran] 226—C
pneumoencephalography in behavior, [Amatrude] 720—ab
BRAIN—Continued
poliomyelitis virus (crystallized), 1218—E
rabies virus recovered from undiagnosed case, [Schaeffer] 399—ab
reactions to mapharsen, [Thomas] 1247—ab
structural changes from whooping cough, [Lurie & Levy] ★890
supratentorial disease, quantitative olfactory tests for, [Elsberg] 314—ab
surgery, prefrontal lobotomy in abnormal mental states, [Drake] 1066—ab
Syphilis: See Neurosyphilis
tumor, amino acids effect on, 326
tumor, gastrointestinal symptoms, [Nielsen] 571—ab
tumor, ligate carotid, [Dandy] 1249—ab
tumor, massive hemorrhage into; antecedent trauma, [Globus & Sapirstein] ★348
BRAN, biologic value of wheat proteins, 126—E
BRANDENBERG, LEOPOLD W. A., accused of altering fingerprints, 135
BRAZIL and Argentina, scientific relations, 387
BRAZILIAN Army: See Army
Congress for Prevention of Blindness, 1240
BREAD: See also Flour
baking, effect on vitamin content, [Kohman] ★838
nutritive value, [Maynard] ★692
white vs. brown, iron exchanges of adults on, [Widdowson] 82—ab
BREAKFAST Cereals: See Cereal Products
BREAST: See also Lactation; Nipple
cancer in male, [Williams] 319—ab
cancer, punch biopsy, 492
Feeding: See Infants, feeding
hypertrophy in the male, new syndrome, 1400—E
lesions (cancer, mastitis, hypertrophy, tumors); 65 patients: 2 worked with diethylstilbestrol, [Scarff] 406—ab
Milk: See Lactation; Milk, human
roentgen study in pathologic secretion, [Frostberg] 1074—ab
wound, ligate coronary artery branch after, [Bradbury] 1425—ab
BREATH, Foul: See Halitosis
holding plus squeezing chest tightly: dangerous anesthetic method, 801
BREATHING: See Inhalation (cross reference); Respiration
Machines: See Respirators
BREWER'S Yeast: See Yeast
BRIGHT'S Disease: See Nephritis
BRILLIANTINE Roland, 471—BI
BRISTOL, L. D., subcommittee report on fuel rationing ★370; 376—E
BRITISH: See also England; Royal; World War
Army: See Army; World War
Association of Occupational Therapists, 977
Bureau of Hygiene and Tropical Diseases, Sir Scott retires, 1409
experience in air raids, [Baehr] ★1045
Medical Association, (medical planning committee report) 139; 460—OS; 1312—E; (rejects state medicine) 217; 1410
Medical Students' Association, 1410
BROADCASTING: See Radio
BROCCOLI, ascorbic acid values, room temperature affects, [Kohman] ★833
nutritive value, [Maynard] ★695
BROMIDE: See also Prostigmine bromide
intoxication, mental symptoms in, [Kitching] 483—ab
sodium, for migraine with menstruation, 326
BROMO-SIZZ, Reed's Effervescent, 552—BI
BROMO-THEIN, 552—BI
BRONCHI: See Bronchus
BRONCHIECTASIS, bilateral, pneumonectomy for [Blades] 1344—ab
in children; bronchoscopic diagnosis and treatment; iodized oil in bronchography, [Wishart] ★1181
without disability, [Martin] 1436—ab
BRONCHITIS, hazard of inhaling coffee dust, 412
Tuberculous: See Bronchus, tuberculosis
BRONCHOGRAPHY: See Bronchiectasis
BRONCHOPNEUMONIA due to measles, mortality, [Bazán] 571—ab
silent, [Andrus] 1432—ab
BRONCHOSCOPY in asthma, [Bases] 398—ab
in atelectasis, [Schmidt & others] ★895; (discussion by various authors) 899—ab
in bronchiectasis in children, [Wishart] ★1181
BRONCHUS: See also Bronchitis; Broncho—; cancer (primary) involving: common masquerading lung disease, [Overholt] 864—ab
cancer with osteopoikilosis, [Ritterhoff] 1428—ab
constriction and increased secretion, role in atelectasis; use of atropine, [de Takats & others] ★686; (combine atropine with potassium iodide) [Schulman] 1157—C
hemorrhage of nontuberculous origin, [Jackson] 565—ab
tuberculosis complicating primary tuberculosis, [Jones] 1429—ab
BRONZE Diabetes: See Hemochromatosis
BRUCELLOSIS, chronic, [Davis] 1064—ab
North Carolina free of Bang's disease, 217
BUERGER'S Disease: See Thromboangiitis obliterans

BUERGI, EMIL, 70th birthday, 1153
BUILDINGS: See also Housing
air raid shelters in, 970
combined fluorescent and Mazda lighting for, 412
office, temperature (minimum) for, (Dr. Bristol's subcommittee report) ★371; 376—E
using oil, minimum heat for, New York, 708
BULLA: See Blisters
BULLET Wounds: See Wounds, gunshot
BULLOCK'S Products, 66—BI
BULL'S 1001 Obesity Capsules, 552—BI
BUNDESEN, HERMAN N., telegram from, read at Pepper hearing, 963
BUNION, Baum's Ace Brand Corn, Callous (?) and Bunion Salve, 225—BI
BUREAU, A.M.A.: See American Medical Association
of Medicine and Surgery: See Navy, U. S.
BURDENKO and his school; surgery in Russia, [Lepukaln] ★1131
BURNS, chemical, of skin from anesthetic or mask, 249
chemical, from rubber soaked in cresol, [Waters] 1336—C
chemical: phosphorus, sodium bicarbonate solution for, [Jones] 1256—ab
chemical, prevention of skin irritation from lime dust, 801
facial defects from, plastic surgery for, [Smith] ★352
of eyes in wartime, treatment, 635
size of, in relation to body surface area, Berkow's chart, [Rothman & others] ★805
temperature of water to produce, 325
treatment, boric-butyn-petrolatum gauze, [Hughes] 651—ab
treatment, Cocoanut Grove disaster in Boston, (plasma) 1223; [Faxon & Churchill] ★1385
treatment, cod liver oil, [Hardin] 1434—ab
treatment, human serum albumin, 1041—E
treatment, morphine, 726
treatment, plasma, [Harkins] 1344—ab
treatment, plasma and amigen, [Elman] ★1176
treatment, schema, [Stilman] 320—ab
treatment, sulfadiazine in triethanolamine solution, [Rothman & others] ★803
treatment, sulfathiazole emulsion, [Ackman] 235—ab
treatment, sulfonamides; eusol and procaine contraindicated with, [Matthews] 1256—ab
BURSITIS, subacromial, procaine infiltration for, [Travell & others] ★419
BUSTAMANTE, MIGUEL E., visits U. S., 1326
BUTTER, dehydrated, [Kohman] ★837; 855
BUTYN Treatment: See Burns

BOOK NOTICES

Abdomen, Plastic Surgery of Wall, 85
Abramson, H. A., Electrophoresis of Proteins and the Chemistry of Cell Surfaces, 1441
Accidents: See also First Aid
Visual Aids in Safety Education, 1078
Adams, F. D., Cabot and Adams Physical Diagnosis, 1078
Adolescence, Monograph on Spondylitis or Ankylosing Spondylitis, 799
Young People in Courts of New York State, 1167
Adrenals, El diagnóstico de los tumores suprarrenales, 1077
Age: See also Middle Age; Old Age
Problems of Ageing, 1168
Alcohol Explored, 163
Alcoholism, Control of Sale of Alcoholic Beverages, 799
Allergy, Handbook of, 1168
Alpha Kappa Kappa, History of, 870
Ambassadors in White: Story of American Tropical Medicine, 725
American Association of School Administrators, Health in Schools (20th yearbook), 247
American Medical Association Council on Physical Therapy, Handbook on Amputations, 724
Standard Nomenclature of Disease and Standard Nomenclature of Operations, 1167
American Pharmaceutical Association, National Formulary, 572
American Physiological Society, Annual Review of Physiology, 1259
American Red Cross Textbook on Red Cross Home Nursing, 409
American Social Hygiene Association, Digest of Laws Dealing with Prostitution, etc., 799
Amputation, Cineplastic Operations on Stumps of Upper Extremity, 724
Handbook on, 724
Métodos modernos de amputacao, 994
Anatomy, Morris', 869
of Human Body (Gray's), 1076
Anesthesia, Clinical; Manual of Clinical Anesthesiology, 994
Fundamentals of, An Outline, 84
Angyal, A., Foundations for a Science of Personality, 246
Answer is . . . Your Nerves, 1075
Anus: See Proctology
Army, U. S., Manual of Standard Practice of Plastic and Maxillofacial Surgery, 488
U. S., Medical Corps, Ornithologists of, 36 Biographies, 84
Army—Continued
U. S., Posts and Towns: Baedeker of the Army, 994
Arteries, retinal, Experimental Studies on Vasomotor Innervation of, 245
Arteriosclerosis, Vascular Sclerosis, 164
Arthrodesis, Architectural Principles in, 488
Ash, J. E., Atlas of Otolaryngic Pathology, 1078
Association of American Universities, Journal of Proceedings and Addresses of, 572
Astoria Demonstration, Solving School Health Problems, 800
Atkinson, M., Behind the Mask of Medicine, 246
Atlas of Otolaryngic Pathology, 1078
Automobile accidents, Why We Have, 1348
Bacteriology, Microbiology and Man, 1075
Textbook of (Rice), 246
Baker, J. N., Sex Education in High Schools, 408
Bastos Ansart, M., Tratado de patologia quirúrgica general, 1167
Beaumont, William, Reception of Beaumont's Discovery in Europe, 655
Beckman, H., Treatment in General Practice, 654
Bedbugs, Report of the Committee on Bed-Bug Infestation, 1935-1940, 655
Benedetti-Pichler, A. A., Introduction to the Microtechnique of Inorganic Analysis, 800
Bergmann, E., Cineplastic Operations on Stumps of Upper Extremity, 724
Bernheim, F., Interaction of Drugs and Cell Catalysts, 1441
Bernier, J. L., Atlas of Otolaryngic Pathology, 1078
Manual for the Differential Diagnosis of Oral Lesions, 1442
Beverage Analyses, 573
Bidgood, C. Y., Urology in War, 245
Bierman, W., Medical Applications of Short Wave Current, 1168
Big Spring: Casual Biography of a Prairie Town, 870
Bigger, J. W., Handbook of Hygiene, 247
Binocular Imbalance, 1441
Biography: See Physicians
Biology, Molecular Films: Cyclotron & the New Biology, 654
Symposia, 655; 869
Birds, Ornithologists of U. S. Army Medical Corps, 84
Birkeland, J., Microbiology and Man, 1075
Blanton, W. B., Handbook of Allergy, 1168
Blood Diseases, Synopsis of, 800
Grouping Technic: Manual for, 322
Vessels: See Arteries
Bloom, W., Textbook of Histology, 1168
Bochner, R., Clinical Application of Rorschach Test, 1347
Body Constituents, Dynamic State of, 654
Borsook, H., Vitamins for Health, 574
Bourne, G., War, Politics and Emotion, 247
Bowlby, J., Personality and Mental Illness, 870
Boyd, W. C., Blood Grouping Technic, 322
Immunochemistry, 994
Brain, Encephalography, 655
Bramwell, C., Principles and Practice of Cardiology, 1442
Breast, Plastic Surgery of, 85
Bridges, M. A., Food and Beverage Analyses, 573
Brisco Capurro, A. I., Síndromes clínicos-radiológicos de retracción pulmonar, 1260
British Medical Association, War and the Doctor, 1078
Brittain, H. A., Architectural Principles in Arthrodesis, 488
Burnet, F. M., Influenza, 408
Burton, E. F., Electron Microscope, 655
Cabot and Adams Physical Diagnosis, 1078
Calendar, Memorable Days in Medicine, 574
Cardiology: See Heart
Cattell, J., editor, Biological Symposia, 655; 869
Cell Catalysts, Interaction of Drugs and, 1441
Electrophoresis of Proteins and the Chemistry of Cell Surfaces, 1441
Chadwick, H. D., Modern Attack on Tuberculosis, 489
Chemistry: See also Drugs; Pharmacopeia
Electrophoresis of Proteins and the Chemistry of Cell Surfaces, 1441
Food and Beverage Analyses, 573
High Polymers, 1440
Immunochemistry, 994
Introduction to Microtechnique of Inorganic Analysis, 800
of Vitamins, 572
Volumetric Analysis, 573
Children: See also Infants
Acoustically Handicapped, New York City Public Schools subcommittee report, 409
Education of, in Hospitals and Convalescent Homes, 573
Nutrition and Chemical Growth; Children's Fund of Michigan study, 1168
Reactions to the War, 1441
with Speech Defects, 573
Christian, H. A., Principles and Practice of Medicine, 1075
Christopher, F., editor, Textbook of Surgery, 85
Clark, A. S., Memorable Days in Medicine, 574
Clark, E., Influenza, 408
Clark, P. F., Memorable Days in Medicine, 574
Clarks: An American Phenomenon, 574
Clinicians: See Diagnosis
Cole, W. H., First Aid: Surgical and Medical, 1078
Textbook of General Surgery, 869
Commonwealth Fund, Modern Attack on Tuberculosis, 489
Solving School Health Problems: Astoria Demonstration Study, 800
Contact Lenses, 322
Conwell, H. E., Management of Fractures, Dislocations, and Sprains, 1075
Cowdry, E. V., editor, Problems of Ageing, 1168
Curtis, A. H., Textbook of Gynecology, 1439
Cyclotron, Molecular Films, 654
Davis, K. S., Manual of Roentgen Diagnosis, 1348
Davison, F. R., Synopsis of Materia Medica, Toxicology, and Pharmacology, 246
Deafness, Acoustically Handicapped Children; New York Schools subcommittee report, 409
Dentistry, Manual for Differential Diagnosis of Oral Lesions, 1442
Traumatic Surgery of the Jaws Including First-Aid Treatment, 1440
DeSilva, H. R., Why We Have Automobile Accidents, 1348
Despert, J. L., Children's Reactions to the War, 1441
De Vighne, H. C., Time of My Life: A Frontier Doctor in Alaska, 1442
Diagnosis, bedside, Clinical Cardiology, 1260
Cabot and Adams Physical Diagnosis, 1078
psychiatric, Personality and Mental Illness, 870
Psychodiagnostics, 1076
Roentgen, Manual of, 1348
Diathermy, Medical Applications of the Short Wave Current, 1168
Dickerson, R. E., Digest of Laws Dealing with Prostitution and Other Sex Offenses, 799
Dictionary, New Technical and Commercial, 1260
Stedman's, 322
Diehl, H. S., Healthful Living, 1168
Diet: See also Food
Complete Book of Diets for All Ages, 323
Food Values in Shares and Weights, 322
Wartime Meals, 574
Disability Evaluation: Principles of Treatment of Compensable Injuries, 1442
Disease, Religion in Illness and Health, 323
Standard Nomenclature of, 1167
Dislocations, Management of, 1075
Dobson, M., Binocular Imbalance, 1441
Doctors: See Physicians
Domenech, A. L., Impotencia sexual masculina, 163
Donaldson, B. M., Everyday Nursing for the Everyday Home, 409
Dowell, D. A., Roentgen Treatment of Infections, 1347
Dressler, W., Clinical Cardiology, 1260
Drugs: See also Chemistry; Pharmacology; Pharmacopeia
Drug & Food Regulation, 1440
Interaction of Drugs and Cell Catalysts, 1441
Ophthalmic Formulary, 800
Duncan, G. G., editor, Diseases of Metabolism, 1077
Education of Children in Hospitals and Convalescent Homes, 573
Electron Microscope, 655
Electrophoresis of Proteins and Chemistry of Cell Surfaces, 1441
Elman, R., Textbook of General Surgery, 869
Emotion, War, and Politics, 247
Encephalography, 655
Enzymes, Interaction of Drugs and Cell Catalysts, 1441
Exercise, You Don't Have to Exercise! Rest Begins at Forty, 245
Extremities, Cineplastic Operations on Stumps of Upper Extremity, 724
Eyes: See Ophthalmology
Falk, H. C., Operating Room Procedure for Nurses and Internes, 163
Family Nutrition, 573
Farris, E. J., editor, Rat in Laboratory Investigation, 164
Feeding the Nation in Peace and War, 488
Fiction, Big Spring: Casual Biography of a Prairie Town, 870
Field, R. M., Complete Book of Diets for All Ages, 323
Films: See also Motion Pictures
Molecular: Cyclotron & New Biology, 654
Finlay, C. F., Carlos Finlay and Yellow Fever, 489
Finlay, Carlos, and Yellow Fever, 489
First Aid: Surgical and Medical, 1078
Traumatic Surgery of the Jaws Including First-Aid Treatment, 1440
Fishbein, M., editor, Healthful Living, 1168
National Nutrition, 655
Food: See also Diet; Nutrition; Vitamins
Analyses, 573
First Official List of Books, Pamphlets, Posters, Charts and Periodicals on, 574
First Official List of Motion Pictures on, 655
Food & Drug Regulation, 1440
Heredity, Food, and Environment in Nutrition of Infants and Children, 245
Values in Shares and Weights, 322
Ford, E. B., Genetics for Medical Students, 572
Formulary and Handbook, The Johns Hopkins Hospital, 1439
Ophthalmic, 800

BOOK NOTICES—Continued
Fractures, Management of, 1075
Fraser, R., translator, Vasomotor Innervation of Retinal Arteries, 245
Fraternities, History of Alpha Kappa Kappa, 870
Freeman, W., Hear! Hear! Informal Guide to Public Speaking, 164
Garber, S. T., Stedman's Practical Medical Dictionary, 322
Gault, E. S., Essentials of Pathology, 1077
Genetics for Medical Students, 572
Genitourinary Organs, Wounds and Other Emergencies, Urology in War, 245
Geriatrics, Care of the Aged, 409
Glasses, Contact Lenses, 322
Gordon, B., editor, Hughes' Practice of Medicine, 322
Gorin, M. H., Electrophoresis of Proteins and the Chemistry of Cell Surfaces, 1441
Gould, G., Digest of Laws Dealing with Prostitution and Other Sex Offenses, 799
Gradwohl, R. B. H., Questions in Laboratory Methods, 247
Gray's Anatomy, 1076
Griffith, J. Q., Jr., editor, Rat in Laboratory Investigation, 164
Groves, E. R., Marriage, 408
  Sex Fulfillment in Marriage, 408
Groves, G. H., Marriage and Family Life, 408
  Sex Fulfillment in Marriage, 408
Growth, Nutrition and, in Childhood, 1168
Gynecology, Textbook of (Curtis) 1439
Habas, R. A., Art of Self-Control: How to Make Your Habits Work for You, 572
Habits, Art of Self-Control: How to Make Your Habits Work For You, 572
Haggard, H. W., Alcohol Explored, 163
Hall, V. E., editor, Annual Review of Physiology, 1259
Halpern, F., Clinical Application of Rorschach Test, 1347
Harrison, G., Professional Adjustments, 1168
Hathaway, S. R., Physiological Psychology, 246
  Minnesota Multiphasic Personality Schedule, 1441
Health: See also Hygiene
  Healthful Living, 1168
  in Schools (20th yearbook), 247
  Science of, 654
  Solving School Health Problems: Astoria Demonstration, 800
  Vitamins for, 574
Hear! Hear! An Informal Guide to Public Speaking After Dinner, 164
Heart, Clinical Cardiology, 1260
  Principles and Practice of Cardiology, 1442
  Short History of Cardiology, 1076
Heidel, W. A., Hippocratic Medicine, 164
Heredity, Food, and Environment in Nutrition of Infants and Children, 245
Herrick, J. B., Short History of Cardiology, 1076
Hippocratic Medicine, 164
Hirschman, L. J., Synoposis of Ano-Rectal Diseases, 654
Histology, Textbook of, 1168
Hoch, P. H., Workmen's Compensation and the Physician, 247
Holm, S., Macular Proliferation, 1260
"Holt, Jane," Wartime Meals, 574
Hospitals, Education of Children in, 573
  Formulary and Handbook, The Johns Hopkins Hospital, 1439
  Mentally Ill and Public Provision for Their Care in Illinois, 1347
Hughes' Practice of Medicine, 322
Hume, E. E., Ornithologists of U. S. Army Medical Corps, 84
Huse, W., Vitamins for Health, 574
Hygiene: See also Health
  Handbook of, 247
Illinois, Mentally Ill and Public Provision for Their Care, 1347
Immunochemistry, 994
Impotence, Impotencia sexual masculina, 163
Industry, Disability Evaluation, 1442
  Psychology, 1439
  Toxicity and Potential Dangers of Toluene, 1439
  Workmen's Compensation and the Physician, 247
Infants: See also Children
  Heredity, Food, and Environment in the Nutrition of, 245
  Prospective Mother (with chapter on care of newborn), 1442
Infections, Roentgen Treatment of, 1347
  Sulfonamide Compounds in the Treatment of, 1078
Influenza: Survey of Last 50 Years, 408
Instruments, History and Evolution of Surgical Instruments, 85
Insurance Carriers, Workmen's Compensation and the Physician, 247
Interns, Operating Room Procedure for, 163
Intestines, Obstructions, 994
Ivy, R. H., chairman, Manual of Standard Practice of Plastic and Maxillofacial Surgery, 488
Jackson, A. S., Answer is . . . Your Nerves, 1075
Jackson, C., Diseases and Injuries of the Larynx, 870
Jacobs, A. L., trans., Pulmonary Tuberculosis and its Treatment, 1440
Jaffary, S. K., Mentally Ill and Public Provision for Their Care in Illinois, 1347
Jaws, Traumatic Surgery, Including First Aid Treatment, 1440
Jellinek, E. M., Alcohol Explored, 163
Jewish, American Physicians of Note: Biographical Sketches, 1078
Johns Hopkins Hospital, Formulary and Handbook, 1439
Johnson, B., Digest of Laws Dealing with Prostitution and Other Sex Offenses, 799
Joints, Architectural Principles in Arthrodesis, 488
Jordan, E. P., editor, Standard Nomenclature of Disease and Standard Nomenclature of Operations, 1167
Jordan, H. H., Workmen's Compensation and the Physician, 247
Kagan, S. R., American Jewish Physicians of Note, 1078
Kahn, R. L., Serology in Syphilis Control, 724
Kelley, J. F., Roentgen Treatment of Infections, 1347
Key, J. A., Management of Fractures, Dislocations, and Sprains, 1075
King, J. T., Principles and Practice of Cardiology, 1442
Klüver, H., editor, Biological Symposia, 869
Knee, Afecciones traumáticas de los meniscos de la rodilla, 1442
Kohl, W. H., Electron Microscope, 655
Kolthoff, I. M., Volumetric Analysis, 573
Krantz, J. C., Jr., Formulary and Handbook, the Johns Hopkins Hospital, 1439
Kronenberg, B., translator, Psychodiagnostics, 1076
Laboratory Methods, Questions in, 247
  Rat in Laboratory Investigation, 164
dal Lago, H., Afecciones traumáticas de los meniscos de la rodilla, 1442
Langmuir, I., Molecular Films: Cyclotron & the New Biology, 654
Larynx, Diseases and Injuries of, 870
Lawrence, E. O., Molecular Films: Cyclotron & the New Biology, 654
Laws, Digest of State and Federal Laws Dealing with Prostitution and Other Sex Offenses, 799
  Food & Drug Regulation, 1440
  Young People in the Courts of New York State, 1167
Lemkau, P., translator, Psychodiagnostics, 1076
Lenses, Contact, 322
Levine, M., Psychotherapy in Medical Practice, 1076
Lewis, G. G., Ophthalmic Formulary, 800
Lewis, T., Pain, 164
Lewis, W. H., editor, Anatomy of the Human Body (Gray's), 1076
Lichtwitz, L., Functional Pathology, 246
Linacre Lecture: Authority, Observation and Experiment in Medicine, 994
Luck, J. M., editor, Annual Review of Physiology, 1259
Lundy, J. S., Clinical Anesthesia, 994
Lungs, Síndromes clínicos-radiológicos de retracción pulmonar, 1260
McBride, E. D., Disability Evaluation, 1442
McKinley, J. C., Minnesota Multiphasic Personality Schedule, 1441
Mackintosh, J. M., editor, War and the Doctor: Immediate Treatment of War Wounds, 1078
Macula Lutea, Proliferation (Pseudotumour), 1260
Macy, I. G., Nutrition and Chemical Growth in Childhood, 1168
Macy (Josiah, Jr.) Foundation, Problems of Ageing, 1168
Malaria, Symposium on, Special Reference to North America and Caribbean Region, 84
Mangam, W. D., The Clarks: An American Phenomenon, 574
Mark, H., High Polymers, 1440
Marriage, 408
  Family Life and, 408
  Sex Fulfillment in, 408
Materia Medica: See Pharmacology
Mattice, M. R., Food and Beverage Analyses, 573
Maximow, A. A., Textbook of Histology, 1168
Meals, Wartime, How to Plan, How to Buy, How to Cook Them, 574
Meat You Eat, 574
Medical History, Ambassadors in White: Story of American Tropical Medicine, 725
  History and Evolution of Surgical Instruments, 85
  Memorable Days in Medicine: A Calendar, 574
  Reception of William Beaumont's Discovery in Europe, 655
  Short History of Cardiology, 1076
Medical Jurisprudence, Young People in the Courts of New York State, 1167
Medical Research Council, Report of Committee on Bed-Bug Infestation, 1935-1940, 655
Medicine, Authority, Observation and Experiment in, 994
  Behind the Mask of, 246
  Handbook of, for Final Year Students, 800
  Hippocratic: Its Spirit and Method, 164
  Hughes' Practice of, 322
  Military: See War
  Nautical, Short History of, 725
  pastoral, Religion in Illness and Health, 323
  Principles and Practice of (Osler's), 1075
  Psychotherapy in Medical Practice, 1076
Mental Disorders, Mentally Ill and Public Provision for Their Care in Illinois, 1347
  Personality and Mental Illness: Essay in Psychiatric Diagnosis, 870
  Religion in Illness and Health, 323
Meredith, F. L., Science of Health, 654
Metabolism, Diseases of, Detailed Methods of Diagnosis and Treatment, 1077
  intermediary, Dynamic State of Body Constituents, 654
Meyer, K. H., Natural and Synthetic High Polymers, 1440
Microscope, Electron, 655
Middle Age, You Don't Have to Exercise! Rest Begins at Forty, 245
Military: See War
Miller, J. A., editor, Preventive Medicine in Modern Practice, 1348
Minnesota Multiphasic Personality Schedule, 1441
Moon, V. H., Shock, 1259
Morris' Human Anatomy, 869
Moschcowitz, E., Vascular Sclerosis with Special Reference to Arteriosclerosis, 164
Motion Pictures, First Official List of, on Food and Nutrition, 655
Moulton, F. R., editor, Symposium on Human Malaria, 84
Mouth, Manual for Differential Diagnosis of Oral Lesions, 1442
Moyer, L. S., Electrophoresis of Proteins and the Chemistry of Cell Surfaces, 1441
Muir, R., Text-Book of Pathology, 993
Murphy, M., Wartime Meals, 574
National Education Association, Visual Aids in Safety Education, 1078
National Formulary, 572
  Nutrition, 655
National Research Council, Fundamentals of Anesthesia: An Outline, 84
  Handbook of Scientific and Technical Societies, Institutions, 247
  Manual of Standard Practice of Plastic and Maxillofacial Surgery, 488
  Military Surgical Manual: Ophthalmology and Otolaryngology, 1077
Navy, U. S., Short History of Nautical Medicine, 725
Nerves, Answer is . . . Your Nerves, 1075
New York Academy of Medicine, Preventive Medicine in Modern Practice, 1348
  Academy of Science, Immunochemistry, 994
  Children with Speech Defects, 573
  City Nutrition Program, First Official List of Books, Pamphlets, Posters, etc., 574
  City Nutrition Program, First Official List of Motion Pictures on, 655
  City, Solving School Health Problems: Astoria Demonstration, 800
  City subcommittee report; Acoustically Handicapped Children, '09
  Education of Children in Hospitals and Convalescent Homes, 573
  State Trichinosis Commission, Meat You Eat, 574
  State, Young People in the Courts of, 1167
Nissen, R., Cineplastic Operations on Stumps of Upper Extremity, 724
Nomenclature, Standard, of Disease and of Operations, 1167
Norlin, E. E., Everyday Nursing for the Everyday Home, 409
Novels: See Fiction
Nurses, Operating Room Procedure for, 163
  Professional Adjustments II, 1168
Nursing, American Red Cross Textbook on Red Cross Home Nursing, 409
  Everyday Nursing for Everyday Home, 409
Nutrition: See also Diet; Food; Meals
  Chemical Growth and, in Childhood, 1168
  Family, 573
  Feeding the Nation in Peace and War, 488
  First Official List of Books, Pamphlets, Posters, Charts and Periodicals on, 574
  First Official List of Motion Pictures on, 655
  Heredity, Food, and Environment in, of Infants and Children, 245
  National, 655
Nyswander, D. B., Solving School Health Problems, Astoria Demonstration, 800
Obrig, T. E., Contact Lenses, 322
Old Age, Care of the Aged (Geriatrics), 409
Operating Room Procedure for Nurses and Interns, 163
Ophthalmology, Binocular Imbalance, 1441
  Contact Lenses, 322
  Experimental Studies on Vasomotor Innervation of Retinal Arteries, 245
  Formulary, 800
  Macular Proliferation (Pseudotumour) and Closely Related Pictures of Disease, 1260
  Military Surgical Manual (National Research Council Subcommittee), 1077
  Visual Aids in Safety Education (N.E.A.), 1078
  Visual Mechanisms: Biological Symposia, 869
Orthopedics, Afecciones traumáticas de los meniscos de la rodilla, 1442
  Management of Fractures, Dislocations, and Sprains, 1075
Osler's Principles and Practice of Medicine, 1075

BOOK NOTICES—Continued
Otolaryngology, Atlas of Otolaryngic Pathology, 1078
Military Surgical Manual (National Research Council Subcommittee), 1077
Padgett, E. C., Skin Grafting, 799
Pain, 164
Pastoral medicine, Religion in Illness and Health, 323
Pathology, Essentials of, 1077
Functional, 246
Otolaryngic, Atlas of, 1078
Text-Book of (Muir), 993
Patric, J., Repairman Will Get You If You Don't Watch Out, 247
Pediatrics: See Children; Infants
Perol Guerrero, A., New Technical and Commercial Dictionary, 1260
Personality and Mental Illness, 870
Foundations for a Science of, 246
Minnesota Multiphasic Personality Schedule, 1441
Pharmacology: See also Chemistry; Drugs
Synopsis of Materia Medica, Toxicology, and Pharmacology, 246
Pharmacopoeia, U. S., XII, 993
Philadelphia Child Health Society, Family Nutrition, 573
Phillips, S., Big Spring, 870
Physical Therapy, Medical Applications of Short Wave Current, 1168
Physicians, American Jewish, of Note, 1078
Carlos Finlay and Yellow Fever, 489
Old Doctor of the New School (autobiography of J. C. Wood), 870
Ornithologists of the U. S. Army Medical Corps, 84
Time of My Life: A Frontier Doctor in Alaska (autobiography of H. C. De Vighne), 1442
War and the Doctor: Essays on Immediate Treatment of War Wounds, 1078
Physiology, Annual Review of, 1259
Psychology, 246
Picken, L. E. R., trans., Natural and Synthetic High Polymers, 1440
Pico Estrada, O. M., El diagnóstico de los tumores suprarrenales, 1077
Piney, A., Synopsis of Blood Diseases, 800
Politics, War, and Emotion, 247
Pope, A. S., Modern Attack on Tuberculosis, 489
Porsaa, K., Experimental Studies on Vasomotor Innervation of Retinal Arteries, 245
Pregnancy, Prospective Mother, 1442
Preventive Medicine in Modern Practice, 1348
Proctology, Synopsis of Ano-Rectal Diseases, 654
Prospective Mother, 1442
Prostitution, Digest of State and Federal Laws dealing with, 799
Proteins, Electrophoresis of, 1441
Psychoanalysis, Discovery of the Orgone, 1260
Psychodiagnostics, Diagnostic Test Based on Perception, 1076
Psychology, Clinical Application of Rorschach Test, 1347
Foundations for a Science of Personality, 246
Industrial, 1439
Minnesota Multiphasic Personality Schedule, 1441
Physiological, 246
Public Health: See Health
Public Speaking, Hear! Hear! An Informal Guide to, 164
Puestow, C. B., First Aid: Surgical and Medical, 1078
Rabies, 85
Radio, Hear! Hear! An Informal Guide to Public Speaking over the Radio, 164
Rat in Laboratory Investigation, 164
Rectum: See Proctology
Red Cross, American, Textbook on Nursing, 409
Redfield, R., editor, Biological Symposia, 655
Reeve, R. M., Atlas of Otolaryngic Pathology, 1078
Reich, W., Discovery of the Orgone, 1260
Repairmen Will Get You If You Don't Watch Out, 247
Retina, Experimental Studies on Vasomotor Innervation of Arteries, 245
Rice, T. B., Textbook of Bacteriology, 246
Riis, R. W., Repairmen Will Get You If You Don't Watch Out, 247
Robertson, E. G., Encephalography, 655
Roddis, L. H., Short History of Nautical Medicine, 725
Roentgen Diagnosis, Manual of, 1348
Treatment of Infections, 1347
Rorschach, H., Psychodiagnostics, 1076
Rorschach Test, Clinical Application, 1347
Rosen, G., Reception of William Beaumont's Discovery in Europe, 655
Rosenberg, H. R., Chemistry and Physiology of Vitamins, 572
Rowbotham, G. F., Acute Injuries of Head, 725
Rubber, High Polymers, 1440
Safety Education, Visual Aids in (N. E. A.), 1078
Schaeffer, J. P., editor, Morris' Human Anatomy, 869
Schiff, F., Blood Grouping Technic, 322
Schnitker, M. A., Sulfonamide Compounds in Treatment of Infections, 1078
Schoenheimer, R., Dynamic State of Body Constituents, 654
Schools, Health in Schools (20th yearbook), 247
Sex Education in High Schools, 408
Sex Guidance in Family Life Education, 408
Solving School Health Problems: Astoria Demonstration, 800
Scott, G. D., Heredity, Food, and Environment in Nutrition of Infants and Children, 245
Scott, S. G., Monograph on Adolescent Spondylitis or Ankylosing Spondylitis, 799
Self-Control, Art of How to Make Your Habits Work for You, 572
Sex, Discovery of the Orgone, 1260
Education in High Schools, 408
Fulfillment in Marriage, 408
Guidance in Family Life Education: Handbook for Schools, 408
Impotencia sexual masculina, 163
offense, Digest of State and Federal Laws Dealing with, 799
Shock: Its Dynamics, Occurrence and Management, 1259
Skin Grafting, 799
Slemons, J. M., Prospective Mother, 1442
Smith, L. W., Essentials of Pathology, 1077
Social Systems, Levels of Integration; Biological Symposia, 655
Societies, Handbook of Scientific and Technical Societies, 247
Speaking: See Public Speaking
Speech defects, Children with, 573
Spine, Monograph on Adolescent Spondylitis or Ankylosing Spondylitis, 799
Sprains, Management of, 1075
Standard Nomenclature of Disease and of Operations, 1167
Stedman's Practical Medical Dictionary, 322
Steincrohn, P. J., You Don't Have to Exercise! Rest Begins at Forty, 245
Stenger, V. A., Volumetric Analysis, 573
Stomach, secretion, Reception of William Beaumont's Discovery in Europe, 655
Strain, F. B., Sex Guidance in Family Life Education, 408
Students, Medical, Genetics for, 572
Sulfonamide Compounds in Treatment of Infections, 1078
Sullivan, C. J., Army Posts and Towns: The Baedeker of the Army, 994
Surgery, Architectural Principles in Arthrodesis, 488
Cineplastic Operations on Stumps of Upper Extremity, 724
First Aid: Surgical and Medical, 1078
Handbook on Amputations, 724
History and Evolution of Surgical Instruments, 85
Intestinal Obstructions, 994
Manual of Standard Practice of Plastic and Maxillofacial Surgery, 488
Métodos modernos de amputacao, 994
Operating Room Procedure for Nurses and Internes, 163
Ophthalmology and Otolaryngology: Military Surgical Manual, 1077
Plastic Surgery of Breast and Abdominal Wall, 85
Skin Grafting, 799
Standard Nomenclature of Operations, 1167
Textbook of (Christopher's), 85
Tratado de patologia quirúrgica general, 1167
Traumatic Surgery of Jaws Including First-Aid Treatment, 1440
Syphilis Control, Serology in, 724
Taylor, C. M., Food Values in Shares and Weights, 322
Taylor, H. S., Molecular Films: Cyclotron & New Biology, 654
Terminology, Standard Nomenclature, 1167
Therapeutics, Treatment in General Practice, 654
Thewlis, M. W., Care of the Aged (Geriatrics), 409
Thoma, K. H., Traumatic Surgery of Jaws Including First-Aid Treatment, 1440
Thompson, C. J. S., History and Evolution of Surgical Instruments, 85
Thorek, M., Plastic Surgery of Breast and Abdominal Wall, 85
Tiffin, J., Industrial Psychology, 1439
Time of My Life: A Frontier Doctor in Alaska, 1442
Toluene, Toxicity and Potential Dangers, 1439
Topley, W. W. C., Authority, Observation and Experiment in Medicine (Linacre Lecture), 994
Trauma, Afecciones traumáticas de los meniscos de la rodilla, 1442
Disability Evaluation: Treatment of Compensable Injuries, 1442
Surgery of the Jaws Including First-Aid Treatment, 1440
Tratado de patologia quirúrgica general, 1167
Treatment: See Therapeutics
Trichinosis, Meat You Eat, 574
Tropical Medicine, Ambassadors in White: The Story of American Tropical Medicine, 725
Trott, L. L., American Red Cross Textbook on Red Cross Home Nursing, 409
Tuberculosis, Modern Attack on, 489
Non-Pulmonary, 993
Pulmonary, and Its Treatment, 1440
Tumors, El diagnóstico de los tumores suprarrenales, 1077
United States Army: See Army
Navy: See Navy
Pharmacopeia: See Pharmacopeia
Universities, Association of American Universities, 572
Urology in War: Wounds and Other Emergencies, 245
Ustvedt, H. J., Pulmonary Tuberculosis and its Treatment, 1440
van Antwerp, L. D., History of Alpha Kappa Kappa, 870
Vasconcelos, E., Métodos modernos de amputacao, 994
Vasomotor Innervation of Retinal Arteries, 245
Venereal Disease, Digest of State and Federal Laws Dealing with Prostitution, 799
Vision: See Ophthalmology
Vitamins, Chemistry and Physiology of, 572
for Health, 574
von Oettingen, W. F., & others, Toxicity and Potential Dangers of Toluene, 1439
Walker, G. F., Handbook of Medicine for Final Year Students, 800
Walworth, G., Feeding the Nation in Peace and War, 488
Wangensteen, O. W., Intestinal Obstructions, 994
War, Acute Injuries of the Head, 725
Army Posts and Towns: The Baedeker of the Army, 994
Children's Reactions to, 1441
Cineplastic Operations on Stumps of the Upper Extremity, 724
First Aid: Surgical and Medical, 1078
Handbook on Amputations, 724
Manual of Standard Practice of Plastic and Maxillofacial Surgery, 488
Ophthalmology and Otolaryngology: Military Surgical Manual, 1077
Politics and Emotion, 247
Shock: Its Dynamics, Occurrence and Management, 1259
Urology in, Wounds and Other Emergencies of Genito-Urinary Organs, 245
War and the Doctor: Essays on the Immediate Treatment of War Wounds, 1078
Wartime Meals, 574
Webster, L. T., Rabies, 85
Wilkinson, M. C., Non-Pulmonary Tuberculosis, 993
Wilson, C. M., Ambassadors in White: Story of American Tropical Medicine, 725
Wilson, S., Food & Drug Regulation, 1440
Wise, C. A., Religion in Illness and Health, 323
Wolfe, T. P., trans., Discovery of the Orgone, 1260
Wood, J. C., Old Doctor of the New School, 870
Workmen's Compensation and the Physician, 247
Disability Evaluation, 1442
Wounds: See War
Yearbook, 20th, Health in Schools, 247
Annual Review of Physiology, 1259
Yellow Fever and Carlos Finlay, 489
You Don't Have to Exercise! Rest Begins at Forty, 245

C

CCC: See Civilian Conservation Corps
CABBAGE, nutritive value, [Maynard] ★695
storage and cooking effect on vitamin C and on other nutrients, [Kohman] ★832; ★834
CACHEXIA, Bronze: See Hemochromatosis
CADMIUM Sulfide: See Tuberculosis, Pulmonary, treatment
CAFFEINE: See also Coffee
WPB Conservation Order M-222, 210
CAISSON DISEASE, muscular cramps on exertion, 248
CALAFO Liquid, 66—BI
CALCIFEROL, in defense of, [Bacharach] 787—C
CALCIFICATION: See Lungs; Teeth
CALCIUM deposits in pulmonary parenchyma, diagnostic significance, 324
excretion in thyrotoxicosis and myxedema, [Robertson] 242—ab
lactate effect on fetus, 87
metabolic balances; intake; retention, [Macy] ★36
oxide, preventing skin irritation from lime dust, 801
preparation, use in pregnancy, 1443
recommended daily allowances, [Wilder & Keys] ★530; (in British diet) ★534
requirement in child feeding; also use of calcium salts, [Jeans] ★920
Treatment: See Dysentery, bacillary
CALCULI: See under organ affected as Kidneys; Urinary Tract
CALDWELL Medal: See Prizes
CALDWELL-LUC Operation: See Maxillary Sinusitis
CALIFORNIA Nutrient Cream, 471—BI
basic science act defeated, 1405—OS
Physicians' Service [Kress] 1233—ab; [Simons] ★1316; [Kress] 1316—ab, 1322—ab
University of: See University
CALLOSITAS, plantar calluses in children, [Halberg] 162—ab
CALLUSES: See Callositas; Corns
CALORIES as sugar, (Council report) 763
in Army ration, [Howe] ★95
in Navy ration, [Brown] ★98

CALORIES—Continued
recommended daily allowances, [Wilder & Keys] ★530; (in British diet) ★534
CAMILLE'S Mascara, 307—BI
CAMPBELL, D. H., artificial antibodies, Dr. F. M. Wood's priority, [Wood] 309—C
CAMPS, Army: See Medicine and the War; World War
CCC: See Civilian Conservation Corps
CANADA: See also Royal Society of Canada; Toronto
health insurance in, 1404
sickness insurance in; plans adopted by Manitoba Medical Association, 773—OS
CANADIAN Army: See Army
Medical Association, (president: Dr. Archer) 216
Public Health Association, (meeting) 137
Radium & Uranium Corp., radium for office practice obtainable from, 996
Red Cross: See Red Cross
Tuberculosis Association, (meeting) 137
CANCER: See also Chorionic Carcinoma; Epithelioma; under name of organ or region affected; Medicolegal Abstracts at end of letter M
American Society for Control of, (campaign) 464; (Women's Field Army) 1049
blood pattern distinctive in, "dotted curtain" type, [Bolen] 1252—ab
cell cultures, [Hengstmann] 1258—ab
clinic, New York City, closed, 708
control, (state project, W. Va.) 301; (Westchester County, New York), [Adie & Charlton] ★752; (South America) 857
control, Strang Prevention Clinic, 463
culture, yolk sac of chick embryos for, 1219—E
dicoumarin used with caution in, [Butsch & Stewart] ★1025
etiology; carcinogenic agents; viruses, [Murphy] ★109; ★110
etiology: develops on condyloma acuminatum, [Kramann] 160—ab
heredity, [Murphy] ★108; [Macklin] 867—ab
hospital (state) project, (Texas) 300; 1050; (West Va.) 301
in infants and children, [Ritvo] 1342—ab
in infants (lungs), [Hauser] 402—ab
industrial, of mouth, [Schour & Sarnat] ★1205
institute at Lankenau Hospital $2,000,000 bequest, 60
meeting, (New York) 708
metastases from prostate, serum "acid" phosphatase in, [Alyea & Henderson] ★1099; [Nesbit & Cummings] ★1109; [Gutman] ★1112; [Herbst] ★1116
metastases, lymphatic and venous spread from rectum, [Grinnell] 397—ab
mortality in husbands and wives, [Ciocco] 1069—ab
of Skin: See Epithelioma; Skin
osteopoikilosis with, [Ritterhoff] 1428—ab
precancerous condition in prepyloric ulcers, [Kirklin & MacCarty] ★733
precancerous mouth lesions in avitaminosis B, [Martin] 647—ab
prizes: Cleveland Medal to Dr. L'Esperance, 463
prizes: Judd, awarded to Dr. Huggins, 973
prizes: Mayer Awards, National Science Fund creates, 1150
quack, Norman Baker denied Supreme Court review, 1147
radiation, [Silverstone] 567—ab
Research: See also Cancer prizes
research, analysis of trends; [Murphy] ★107
research at National Institute of Health, 777
research, grant to establish Christian professorship at Minnesota, 1148
research program, New York, 60
transplantation, [Murphy] ★107
treatment, contact roentgen, [Howes] 1428—ab
treatment, Ensol, of H. C. Connell, 985—MI
Treatment, Irradiation: See Epithelioma; Lips, cancer; Skin cancer; Uterus, cancer
treatment of syphilis in patient with, 872; (reply: use of sobisminol mass) [Hanzlik] 1444
treatment, radium, organization of: National Radium Commission recommendation, 302
vitamin C utilized by patients, [Minor] 236—ab
CANDY makers, sugar caries in, [Schour & Sarnat] ★1201
nutritional aspects, (Council report) 763
Redus-Aid Candy, 785—BI
therapeutic use in alcoholism, [Miller] ★271
CANITIES: See Hair, gray
CANNABIDIOL, 1128—E
CANNABINOL, 1128—E
CANNABIS fluidextract, for menstrual migraine, 326
marihuana, recent investigations, 1128—E
CANNED food, glass vs. tin containers for, [Kohman] ★837
CANNING, commercial, [Kohman] ★834; ★835
CANNON, PAUL R., immunity and protein reserves, 1309—E
CANNON Shell: See Wounds, gunshot
CANTELOUPES, nutritive value, [Maynard] ★696
CAPILLARIES, fragility during menstruation, 1079
CAPSICUM, tincture of, and gastric emptying, [Van Liere] 1253—ab
CARBARSONE, cures penile amebic ulcer, [Hermann & Berman] ★827
CARBOHYDRATES: See also Candy; Dextrose; Molasses; Sugar; Syrup
diet content (Council report) 763
diet free for flatulence, [Sandler] 309—C
diet free for hay fever, 250
diet (low) in pulmonary tuberculosis, [Sandler] 791—ab
diet, voluntary consumption by child, [Jeans] ★919
metabolism-vitamin C relationship, [Haid] 653—ab
tolerance, thymus hormone modifies, [Bomskov] 1258—ab
CARBOLFUCHSIN paint (Castellani) suggested to prevent venereal disease, [Stokes] ★1098
CARBOLIC ACID: See Phenol; Medicolegal Abstracts at end of letter M
CARBON DIOXIDE combining power of plasma after standing in icebox for 18 hours, 1261
Oxygen-Carbon Dioxide Mixture (Ohio Chemical), 125
utilization by animal tissues, 454—E
CARBON MONOXIDE; poisoning, carbon monoxide in blood after, duration of, 168
poisoning, fatal from illuminating gas, possibility with door and window open, 577
poisoning, prognosis in suicidal patients, [Van Amberg] 1342—ab
CARBONATED Beverages: See Beverages
CARBUNCLE: See also Furunculosis
of kidney, [Howard] 991—ab
treatment, sulfathiazole emulsion, [Ackman] 235—ab
CARCINOGENESIS: See Cancer, etiology
CARCINOMA: See Cancer
CARDIAC: See Heart
Asthma: See Asthma
Muscle: See Myocardium
Neurosis: See Asthenia, neurocirculatory
CARDIOVASCULAR DISEASE: See also Heart disease
annual symposium on, Los Angeles, 631
circulatory disorders due to avitaminosis B_1, [Moniz de Bettencourt] 485—ab
refresher course in, N. Y., 383; 1049
Syphilis: See also Aortitis
syphilis, bismarsen in, [Beerman & others] ★336
CARDIOVASCULAR SYSTEM: See Arteries; Blood Vessels; Capillaries; Heart; Veins
CARIES, Dental: See Teeth
Dry: See Osteoarthritis
CARMINATIVES and gastric emptying, [Van Liere] 1253—ab
CARNATION Cold Tablets, 225—BI
CAROTENE, food sources, [Wilder & Keys] ★533
in Blood: See Blood
CAROTID ARTERY: See Arteries
CAROTID CANAL, intracranial arterial aneurysms in, [Dandy] 792—ab
CAROTID SINUS, asphyxial resuscitation with inert gas, [Birnbaum] 318—ab
pressure on, effect on electrocardiogram, [Hartwell] 237—ab
syncope, [Ray] 81—ab
CARRIÈRE, HENRI, death, 1153
CARRIERS: See Disease carriers (cross reference)
CARROTS: See also Carotene
carotenemia after eating 4 pounds per week, [Almond] 1256—ab
nutritive value, [Maynard] ★695
CARS: See Automobiles
CARTER, WILLIAMS S., portrait presented to school, 61
CARTER'S Little Liver Pills stimulate flow of bile? 1219—E
CARTILAGE, arytenoid, chondritis and unusual laryngitis, 1080
growth factor of vitamin B complex, [Elvehjem] ★1396
CARTOON: See Art
CASE Finding: See Tuberculosis
CASEIN, cartilage growth factor, [Elvehjem] ★1396
Hydrolysate of: See Amigen
CASSELBERRY Awards: See Prizes
CAST, plaster, for congenital flatfoot, [Kuhns] ★331
CASTELLANI Carbolfuchsin Paint: See Carbolfuchsin
CASTRATION: See also Eunuchoidism
in prostate cancer, [Alyea & Henderson] ★1099; [Nesbit & Cummings] ★1109; [Gutman] ★1115; [Herbst] ★1116
CASUALTY: See also Accidents; World War II
anesthesia at American Hospital in Britain, [McCarthy] ★599
blast injuries, 1398—E
care of casualties, [McIntire] 1137—ab
care of casualties at Cocoanut Grove disaster in Boston, 1223; [Faxon & Churchill] ★1385
clearing stations, mobile, in Middle East, 977
stations, British experience with air raids, [Baehr] ★1045
CASUALTY—Continued
units of Emergency Medical Service, revised instructions, 1222
CATARACT, complicating pernicious anemia, 167
diabetic, [O'Brien & Allen] ★191
senile and other forms, [Lindahl] 162—ab
CATHARTICS: See also Constipation
Bolk, 470—BI
Ealy's (Dr. T. F.) Baby Powders, 552—BI
Fahrney products, Forni's Alpenkrauter, 470—BI
Kema Tablets and Kema Tea, 1334—BI
liquid petrolatum, saline laxatives; relation to anorectal infections, [Thiele] 1343—ab
use in functional bowel distress after poliomyelitis? 167
use in mucous colitis or irritable colon, [McGavran] ★183
Venus Tablets and V-76 Laxative Tablets, 785—BI
Watkins Laxative Cold Tablets, 552—BI
World Famous New Life Laxative Tonic, 67—BI
CATTLE, Hemorrhagic Sweet Clover Disease Preparation: See Dicoumarin
30 different hereditary isoagglutinogens in erythrocytes of, 536—E
CAULIFLOWER, nutritive value, [Maynard] ★695
CAUTERY for recurrent crops of verruca vulgaris, 492
CAVITIES, Dental: See Teeth, caries
CELIAC DISEASE, treatment, liver extract plus vitamin B complex, [May] 1066—ab
treatment, vitamin B complex, 1262
CELLS: See also Blood cells; Cancer; Tissue
Goormaghtigh, in kidney, [Kaufmann] 989—ab
growth, Mayer awards concerned with, 1150
CELLULITIS of floor of mouth: Ludwig's Angina, [Taffel] 81—ab; [Orton] ★876
CENSUS: See also Manpower; Population
bureau, (Mr. Hauser, assistant) 62; (provides health services for employees) 384
CENTRAL Association of Obstetricians and Gynecologists (suspend meeting), 61
Inter-Urban Clinical Club and Central Clinical Research Club joint meeting, 709
Society for Clinical Research, (program) 709; (meeting) 1051
States Society of Industrial Medicine and Surgery, (program) 1326
CEPHALALGIA, histaminic, 249; (prostigmine bromide for) [Pelner] 1252—ab
CEREAL PRODUCTS, Clapp's Cereal Food for Babies, 453
fellowship for studying prepared breakfast cereals by A. M. A. Council, 628—OS
in infants feeding, [Jeans] ★918
nutritive value, [Wilder & Keys] ★533; [Maynard] ★692
CEREBELLUM Abscess: See Brain
CEREBROSPINAL FLUID, drainage (forced) in acute poliomyelitis: Retan technic, 290—E; [Kubie] 714—C
examination advised in asymptomatic congenital syphilis, 490
specific gravity of procaine hydrochloride in, 168
virus of western equine encephalitis in, [Chown & Norris] ★116
CEREBROSPINAL MENINGITIS: See Meningitis, cerebrospinal epidemic
CEREBROSPINAL SYPHILIS: See Neurosyphilis
CEREBRUM: See Brain
CERTAIN-GRO "Liquid" Hot Oil Treatment, 307—BI
CERTIFICATION: See American Board Specialists
CERTUNA as gametocides, [Aguilar Meza] 320—ab
CERVIX Uteri: See Uterus
CESAREAN SECTION in preventing pregnancy toxemia, [Eastman & Whitridge] ★729
dystocia dystrophia syndrome, [Williams] 1345—ab
CHADWICK Lectures: See Lectures
CHALCONE and vitamin P, 1401—E
CHAMBERLAIN'S Lotion, 1334—BI
CHAN, EUGENE, appointment, 137
CHANCRE in latent syphilis, 1350
CHAPIN Oration: See Lectures
CHARACTERISTICS: See Personality
CHARLES of the Ritz Rejuvenescence Cream, 640—BI
CHASE'S (Dr.) Cushion Comfort and Dr. Chase's Health Shoes, 1156—BI
CHEESE, nutritive value, [Wilder & Keys] ★531
CHEMICAL analysis of ocean water, [Bradish & others] ★684 (footnote 7)
Burns: See Burns
Rare Chemicals, Inc., taken over by National Oil Products Co., 852
Warfare: See also Gas Warfare
warfare course, (3 day, New England) 133; (Baltimore) 210; (teaching day, Syracuse U.) 632; (at McGill) 1329
warfare demonstrations at Buffalo, 132
warfare, medical aspects, Indiana, 775
Warfare School, (graduate officers, Md.) 541; (Pa.) 1044
CHEMISTRY: See also Biochemistry
American Chemical Society, (meeting) 207—E; (prizes) 384
A. M. A. Council on: See American Medical Association

CHEMISTRY—Continued
in relation to food industry, 207—E
National Chemical Exposition, 709
senior and graduate students in, urged to register with National Roster, 1134
CHEMOTHERAPY: See Arsenicals; Sulfonamide Compounds; under names of specific diseases as Neurosyphilis; Osteomyelitis; Tropical Diseases
CHEST: See Thorax
CHEWING: See Tobacco
CHICAGO Beach Hotel to become hospital for air force, 770
Daily News; Sun: See Newspapers
municipal code on lead pipe for connection between water main and residence, 995
University of: See University
CHICKEN: See Eggs
CHIGGER BITES: See Trombidiosis
CHILDBIRTH: See Labor
CHILDREN: See also Families; Infants; Maternity; Pediatrics; under names of specific diseases as Influenza
Adolescent: See Adolescence
alopecia areata in child of 10, 165
Behavior: See Behavior
cancer in, [Ritvo] 1342—ab
Crippled: See Crippled
dental caries rampant in 4 year old, 1261
dependent children's fund, physicians paid for examining applicants, 135
evacuation from London, relation to epidemiology, 767—E
feeding of, [Jeans] ★918
fractures of forearm, [Blount & others] ★111
French, present state of, 386
Handicapped: See Handicapped
health, Lord Nuffield endows chair of child health at King's College 710
mineral metabolic balances (mgs. per day: intake; retention), [Macy] ★37; ★38; ★41
minimum room temperature for fuel oil rationing (Dr. Bristol's subcommittee report), ★371; 376—E; 456—E; [Dean] 472—C
Nursery for: See Nursery
of employed mothers, care under Lanham Act funds, Conn., 298
personality changes after pertussis, [Lurie & Levy] ★890
rheumatic and cardiac, care, New York, 776
school, England, vitamin C levels, [Harris] 242—ab
school, excessive use of sugar and carbonated beverage, (Council report) 765
school, height and weight, 768—E
social welfare, Argentina, 637
U. S. Children's Bureau, (maternity care and employment of mothers) 53; (medical care for wives and infants of service men) 846
wartime care, committee to coordinate, N. Y., 852; 1327
welfare, agencies merge to care for orphans, New York, 1049
welfare, and the war, England, 465
welfare division reorganized, Illinois, 213
welfare, National Conference for, Buenos Aires, 711
welfare, organized board for, Chile, 711
welfare services, federal aid for, in defense communities, Miss Lenroot's statement, 47—E
welfare, state committee on child care, N. Y. 1407
welfare, survey to determine need of child care program, N. J., 546
CHILLS with intermittent hypothermia, amytal prevents, [Hoffman & Pobirs] ★445
CHINA, American medical men honored for services to, 849
Science Society of, N. Y., 60
United China Relief, 210
CHINESE students for Britain, 780
CHIROPRACTORS, educational loan fund, 293—E
Stolurow (P. J.) sentenced—to leave Minnesota, 775
theory of patriotism; International Association; antivaccinationist pamphlet, 207—E
CHLAMYDOZOON myxomae: See Myxomatosis
CHLORIDES: See also Sodium chloride
Isotonic Solution of Three Chlorides (Ringer's solution), N. N. R. (dextrose in, Upjohn) 763; (Upjohn) 1039; (lactate Ringer's solution, Continental Hospital Lab.) 1127
metabolic balances, intake; retention, [Macy] ★40
sea water enemas, 165
dichloroethyl SULFIDE, precautions against gas attacks; antigas ointment, 218
CHLOROFORM treatment of screw worms infestation of ear, [Turnbull & Franklin] ★117
CHLOROPHYLL, nutritive value, [Wilder & Keys] ★533
CHLOROSIS, chronic, as operation hazard, [Abbott] 1064—ab
CHOLEDOCHOTOMY: See Bile Ducts
CHOLEMIA: See Blood, bile in
CHOLERA vaccine immunization of armed forces; U. S. Army order, [Kantor] ★257
CHOLESTEROL in Blood: See Blood
steroid hormones on basis of, [Herbst] ★1116
CHOLINE: See also Acetylcholine; Mecholyl
as a member of the B complex, [Elvehjem] ★1393
CHONDRITIS of arytenoid cartilage and unusual laryngitis, 1080
CHONDRODYSPLASIA: See Dyschondroplasia
CHORIOEPITHELIOMA: See Chorionic Carcinoma
CHORIOMENINGITIS, lymphocytic, virus; laboratory infection; antibody response, [Milzer & Levinson] ★27
CHORIONIC CARCINOMA in male, [Bonn] 1429—ab
CHORIONIC GONADOTROPINS: See Gonadotropins
CHRISTIAN (George Chase) professorship, 1148
CHRISTIAN-Schüller Syndrome: See Schüller-Christian syndrome
CHRISTMAS Seal sale, (originator, Emily P. Bissell awarded Trudeau medal) 216; (annual) 1051
CHRISTOPHERS, Sir SAMUEL R., on atabrine, plasmochin, other quinine substitutes, 385
CHRYSOTHERAPY: See Gold treatment
CHUMANIE Products, 640—BI
CHYLE cysts in mesentery, [Malm] 244—ab
CIBA Co. presents portraits, 1133
CICATRIX: See Appendectomy
CIGARET: See Tobacco
CILIA: See Eyelashes
CINCINNATI, University of: See University
CINCHONA Products Institute, Inc., survey plantations, 1051
CINEMA: See Moving Pictures
CIRCULATION: See Blood circulation
CIRCULATORY Disorders: See Cardiovascular Disease
CIRRHOSIS: See Liver
CITIZENS Aid Society (Minneapolis) establishes Christian professorship at Minnesota, 1148
CITRATE: See Sodium citrate
CITRIC ACID: See Acid
in Blood: See Blood
CITRIN (vitamin P), [Elvehjem] ★1396; 1401—E
CITRININ, highly purified penicillin, [Florey] 482—ab
CIVIL SERVICE: See also United States
state health board positions open, Del., 298
CIVILIAN Conservation Corps camps to become hospitals for girls with venereal disease, 62
Defense: See Medicine and the War
CLAIRMONT, PAUL, death, 1153
CLAPP'S Cereal Food for Babies, 453
CLAVUS: See Corns
CLEANSING Agents: See Detergents
CLEVELAND, appendicitis in, [Watkins] ★1026
Health Museum, (receives grant for nutrition exhibit) 215; (World's Fair exhibit), 1408
Medal: See Prizes
Medical Service plan, Academy states position on, 1328
CLIMACTERIC: See Menopause
CLIMATE: See also Seasons; Tropics
American Clinical and Climatological Association postpones meeting, 216
CLIMBING: See Mountain climbing; Stairs
CLINICAL, American Clinical and Climatological Association, (cancels meeting) 216
Conference: See Education, Medical, graduate
Laboratories: See Laboratories
Pathology: See Pathology
research, Central Society for, (program) 709; (meeting) 1051
Status: See Physical Examination
study (wider) of disease urged by Prof. Ryle in the Gilchrist Lecture, 1151
CLINICS: See also Cancer; Rabies; Venereal Disease
preventive medicine, U. of Colorado establishes, 381
CLINITEST urine sugar analysis, 491
CLOSTRIDIUM welchi: See also Gangrene, gas
welchi, dissemination in the body, [Lippelt] 1346—ab
welchi, effect of succinylsulfathiazole on, [Lockwood] 268—ab
welchi, effect of x-rays on, [Weed] 481—ab
CLOVER, Spoiled Sweet Clover Preparation: See Dicoumarin
sweet, toxin (AP), 1040—E
COAGULATION: See Blood coagulation
COAGULOMETER, Gibb's, modified to determine prothrombin, [Ulin & Barrows] ★826
COAL Breaker Brand Pills, 308—BI
Miners: See Miners
COBALT, essential element in nutrition, [Shils & McCollum] ★612
COCA, crusade against, Colombia, 549
COCAINE: See Anesthesia
COCCIDIOIDOMYCOSIS and calcified pulmonary nodules, [Aronson] 234—ab
in Texas, [Smith] 1434—ab
parallelism of tuberculous infections, [Smith] 80—ab
primary; roentgen study, [Winn] 1061—ab
pulmonary, roentgen diagnosis, [Carter] 80—ab
secondary, [Caldwell] 1434—ab
COCHLIOMYIA Americana, life history of screw worms, [Turnbull & Franklin] ★118
COCKROACH powder, fatal poisoning at state hospital, Ore., 1050
COCOANUT Grove Disaster: See Disaster
COD LIVER OIL treatment of wounds and burns, [Hardin] 1434—ab
COFFEE: See also Caffeine
dust, inhalation hazard, 412
Lust's Barley Malt Coffee, 471—BI
pharmacodynamics of, 140
COFFELT'S Never Failing Hair Coloring, 391—BI
COITUS: See Birth Control; Rape; Spermatozoa
COLD: See also Chills; Freezing; Ice; Temperature
agglutinins, [Davidsohn] ★1288
Cream: See Cosmetics
local application, effect on shock from crush injury, [Duncan] 398—ab
Pressor Test: See Blood Pressure
Therapeutic Use: See also Ethyl Chloride
therapeutic use, [Smith] 1430—ab
water, immersion foot, 1216—E
water in ears, new bone growth due to, [Fowler] 1340—ab
COLDS: See also Cough
Bullock's Products, 66—BI
Carnation Cold Tablets, 225—BI
Chumanie's Plantation C.M.Q. Capsules, 640—BI
Coal Breaker Brand Pills, 308—BI
Father John's Medicine, 225—BI
Hexin, 225—BI
M-K-Mantho-Kreoamo, 66—BI
Na-Pa Balm, 66—BI
prevention, vitamins, [Cowan & others] ★1268
roentgen-ray abortion of, Dr. William Rollins observation in 1897, 325
Watkins Laxative Cold Tablets, 552—BI
COLE, H. N., replies to de Kruif's article in *Reader's Digest*, 226—C
COLECTOMY, technic, [Lahey & Sanderson] ★1356
COLITIS, mucous; obstinate constipation in young woman, 492
mucous, (so-called) or spastic irritable colon, [McGavran] ★182
treatment, reaction to local sulfathiazole, 578
ulcerative nonspecific, sulfaguanidine for, [Kirsner] 231—ab
ulcerative, terminal ileostomy in, [Maingot] 867—ab
COLLAPSE: See Shock
Pulmonary: See Lungs, collapse; Pneumothorax
COLLEGE: See also University
Degree: See Degree
of Physicians, Surgeons, etc.: See American College; Royal College
Premedical Work: See Education, Medical
Students: See Students; Students, Medical
COLON: See also Colitis
absorption of sodium chloride in sea water by, [Bradish & others] ★683
any danger of becoming atrophied in colostomy? 412
Bacillus: See Escherichia coli
cancer and lesions involving right colectomy, [Lahey & Sanderson] ★1356
cancer, resection and anastomosis for, [Stone & McLanahan] ★1362
hemorrhage (uncontrollable), infusions via sternum for, [Doud & Tyseli] ★1212
irritability (spastic) in duodenal ulcer, [Morrison & Feldman] ★738
irritable, in the Army, [Chamberlin] 476—ab
motility and postoperative distention, [Puestow] ★903
obstruction in newborn, clinical signs; x-rays fail to show, [Stadler] ★1384
spastic, irritable, [McGavran] ★182
Surgery: See also Colectomy; Colostomy
surgery, resection; anastomosis, [Stone & McLanahan] ★1362
surgery, succinylsulfathiazole an adjuvant, [Poth] ★265
COLOR BLINDNESS in soldier; no known correction, 1080
COLOSTOMY: See also Ileocolostomy
complications of one stage abdominoperineal resection of rectum, [Jones] ★104
longest interval between first stage Mikulicz resection and closure by, 412
COLUMBIA University, (Institute of Inter-American Affairs) 632; ★1186-★1192; (affiliates with Neuropsychiatric Institute of Hartford Retreat) 851; (committee on zoology) 852; (establishes radiologic laboratory) 1050
COMA and labored respiration from dropping mandible, 728
COMMISSIONS: See Medicine and the War
COMMITTEE of A. M. A.: See American Medical Association
COMMUNICABLE Disease: See Epidemics
COMPENSATION for Injuries: See Veterans; Workmen's Compensation
of Physicians: See Fees
COMPLEMENT Fixation: See Malaria
COMPRESSED Air Disease: See Caisson Disease
CONANT, J. B., premedical education and the 18 year old draftee, 1042—E
CONCEPTION: See Impregnation, artificial; Pregnancy
Control of: See Birth Control
CONDITIONED Reflex Therapy: See Alcoholism
CONDOM as venereal disease preventive, [Stokes] ★1098
CONDYLOMA acuminatum, cancer develops on basis of, [Kramann] 160—ab

CONFERENCE: See also National Conference; list of societies at end of letter S
Annual: See American Medical Association
Graduate: See Education, Medical
of German and foreign doctors, 1313
CONGO RED test in diagnosis of amyloid disease, [Harmon] 1163—ab
CONGRESS: See also list of societies at end of letter S
Annual: See American Medical Association
of Nerve Specialists (2nd) Palestine, 64
U. S.: See United States
U. S., Legislation Enacted: See Laws and Legislation
CONJUNCTIVITIS, shipyard "pink eye"; isolate virus, 538—E; [Hogan] 988—ab; (sodium sulfathiazole sesquihydrate solution cures), [Walter] 1157—C
CONNELL, HENDRY C., ensol, cancer treatment, 985—MI
CONSCRIPTION: See Medicine and the War
CONSTIPATION: See also Catharitics
Loughney's (Dr. A. M.) Anti-Spasthma-Oyl and Bowelkleen, 640—BI
Magnesia S. Pellegrino, 640—BI
obstinate, in young woman, 492
relation to hypertension, [Weiss] ★1084
treatment, agar conserved by WPB; use psyllium instead, 295
Young's (Dr.) Rectal Dilators, 552—BI
CONSTITUTION: See also Personality
duodenal ulcer and, [Morrison & Feldman] ★738
effects of dysentery toxin: shocklike hemoconcentration and duodenal vasoconstriction 1310—E
inadequacy, [Robinson] 553—C
CONTAGION: See Infection
CONTEST: See Prizes
CONTI Complexion Cream, 391—BI
CONTINENCE, problem of morale in venereal disease control, [Stokes] ★1099
CONTINUATION Courses: See Education, Medical, graduate
CONTRACEPTIVE: See Birth Control
CONTRACTION: See Contracture
CONTRACTS of those in service: What happens to them? (Bureau report) 539
CONTRACTURE, Dupuytren's, and epilepsy, [Lund] 244—ab
Dupuytren's, and "knuckle pads," 412
muscular rigidity, Yodice sign to differentiate in acute abdomen, [Yodice] 990—ab
CONVALESCENT Serum: See Poliomyelitis
CONVULSIONS: See also Eclampsia; Epilepsy
after nupercaine local anesthesia, [Organe] 652—ab
fatal, from cocaine, 166; [Stapleton] 642—C
from hypoglycemia, 872
in mother and child after transfusion, 1443
on withdrawal of Dr. James' Headache Powder (taken daily for 16 years), [Austin] ★911
Therapeutic: See Dementia Precox, treatment; Electric shock; Insulin shock; Mental Disorders
COOKING, effect on vitamin C and on other nutrients, [Kohman] ★832; ★834
COOKING AND EATING UTENSILS, self-sterilizing plastics, 127—E
COOLEY'S Anemia: See Anemia, erythroblastic
COOPERATIVE Clinical Group, use of bismuth compounds in syphilotherapy, [Kahn & Becker] ★338; (discussion) 346
COPPER, requirements, [Heath] ★368
CORAMINE: See Nikethamide
CORN, nutritive value, [Maynard] ★693
CORNEA, ochronosis complicating alkaptonuria, [Smith] ★1282
sodium sulfathiazole iontophoresis, [Boyd] 566—ab
transplantation, [Filatov] ★54
CORNELL University, (study of marihuana) 1128—E
CORNS: See also Callositas
Baum's Ace Brand Corn, Callous (?) and Bunion Salve, 225—BI
S.C.S. Corn Salve, 1334—BI
CORONARY Arteries: See Arteries
Thrombosis: See Thrombosis, coronary
Veins: See Veins
CORONERS: See also Medicolegal Abstracts at end of letter M
National Association of, meeting, 216
CORPORA CAVERNOSA, plastic induration of; Peyronie's disease, 728
CORPUS LUTEUM cyst and ectopic pregnancy; clinical similarity, [Israel] 232—ab
extracts use in labor and to prevent abortion, [Falls] 866—ab
Hormone: See Progesterone; Progestin
CORPUS STRIATUM, syndrome after nitrous oxide anesthesia, [de Haas] 244—ab
CORSET: See also Abdominal Belt
Air-Way Reducing Girdle, 146—BI
prohibit fitting to women who do not wear underslips, Mich., 59
CORTICOSTERONE: See Desoxycorticosterone
CORYNEBACTERIUM hektoenii, bacteriogenic hemagglutinins, [Davidsohn] ★1291
CORYZA: See Colds
COSMETICS, Ardena Sensation Cream, Ardena Skin Lotion and Joie de Vivre, 307—BI
Beauty-Glo Cosmetics, 307—BI
Beauty House Cosmetics, 391—BI
COSMETICS—Continued
California Nutrient Cream and Sue Sorrell Texture of Youth Cream, 471—BI
Chamberlain's Lotion, 1334—BI
Charles of the Ritz Rejuvenescence Cream, 640—BI
Conti Complexion Cream, 391—BI
Country Garden and Fragrant Meadow, 307—BI
Cutex and Peggy Sage, 307—BI
Dervita, 307—BI
El Zambu Cream, 307—BI
Elmo Special Formula Cream, 307—BI
Gouraud's Oriental Cream, 308—BI
H.S.G. Cosmetics, 308—BI
Hillshire Down Cosmetics (employing goat's milk), 391—BI
Honey Facial Bath, 391—BI
Lady Esther Face Powder, 308—BI
Lucky Heart Products, 308—BI
Natural Cosmetics, 308—BI
Pompeian Milk Massage Cream, 391—BI
Priscilla Parker Breath Correcting Lipstick, 641—BI
Quinlan Pore Cream and Quinlan Skin Stimulant 471—BI
Vita Ray, 641—BI
COTTON, sensitivity to: blisters on feet and composition of shoes, 86
COUGH: See also Colds; Hemoptysis; Whooping Cough
coughing sign of defective intervertebral disk, [Dandy] ★605
plate method vs. nasopharyngeal culture, [Brooks & others] ★883
COUMARIN: See Dicoumarin
COUNCIL, A. M. A.: See American Medical Association
for Research in Brief Psychotherapy (first meeting), 631
"COUNTRY Garden" cosmetics, 307—BI
COUNTY, "accreditation,": See Tuberculosis Health unit; etc.: See Health
Society: See Societies, Medical
COURSES: See Education, Medical
COURTS: See Medical Jurisprudence
COWS: See Cattle
CRAMPS, muscular, on exertion and caisson disease, 248
CRANIUM: See also Brain; Head
fracture (major compound) of vault, [Carmody] 989—ab
fracture, management; rules for treating first 6 hours, [Mock & Mock] ★498
injuries, coup-contrecoup mechanism, [Courville] 154—ab
CRAVEX, 785—BI
CRAVING: See Ice
CREAM: See also Butter; Cheese
dietotherapy in duodenal ulcer, [Shay & others] ★740
Face: See Cosmetics
of Tartar: See Potassium bitartrate
CREATININE output in children, [Jeans] ★920
CRESOL, burns from rubber soaked in, [Waters] 1336—C
CRILE'S bilateral adrenal denervation, 411
CRIME: See also Medicolegal Abstracts at end of letter M
detection laboratory ends first year, Mich. 214
CRIMINALS: See also Impostors; Prisoners
sentence Dr. L. W. A. Brandenberg accused of altering fingerprints, 135
CRIPPLED: See also Poliomyelitis
children commission, advisory committee, Mich. 214
children, hospital standards for care of, 538—E
Illinois Association for, 1236
training limbless, England, 1239
CROSS Infection: See Infection
CRUSH Injury: See Trauma
CROWELL, H. C., Pandiculator Co., 1244—BI
CRYMOTHERAPY: See Cold, therapeutic use
CRYPTORCHISM: See Testis, undescended
CULLEN Prize: See Prizes
CULTS: See Chiropractors; Naturopathy
CULTURE: See Bacteria; Dysentery; Cancer
CURRENT, Alternating or Direct: See Electric
CURRICULUM: See Education, Medical
CUSHING, HARVEY, John E. Lane Collection of prints, 461
CUTEX, 307—BI
CUTLER-Power-Wilder Sodium Chloride Restriction Test: See Adrenals, insufficiency
CYANIDE solution deterioration in uric acid determinations of blood, 1169
CYCLOPLEGICS, use in refractions, 872
CYCLOPROPANE: See also Anesthesia
N. N. R. (Squibb), 453
CYCLOTRON, radioactive strontium for bone and bone marrow lesions, 1350
radioactive iron, metabolism of, 1399—E
workers, blood count and hemoglobin level in, [Warren] 865—ab
CYST: See also under organ or region affected as Corpus Luteum
Chyle: See Mesentery
foreign body, [Spaeth] ★661
CYSTINE, cartilage growth factor of vitamin B complex, [Elvehjem] ★1396
CYSTITIS: See Bladder
CYSTOCELE: See Bladder

D

"DAILY FIVE" "Daily Diet" George Cary Earnist "Health Booklets," 66—BI
DAIRY Products: See also Butter; Cheese; Cream; Milk
nutritive value, [Wilder & Keys] ★530
DALE, HENRY H., director of laboratories of Royal Institution, 976
DANA (Leslie) Prize: See Prizes
DANDRUFF: See Alopecia seborrheica
DARK Adaptation: See Eyes, accommodation
Eyes (eyelash and eyebrow dye), 307—BI
DAVIS, F. A., Co., death of secretary, George B. Johnson, 383
DAVIS, MICHAEL M., at Pepper hearings, 840—E; 922—E; (testimony) 963
DEAFNESS: See also Hearing, impaired
Nerve: See Otosclerosis
temporary hearing improvement in, 325
Treatment: See also Hearing, aids
treatment, radium irradiation of eustachian orifice, [Emerson] 154—ab
DEARHOLT Day, third annual, 1051
Medal: See Prizes
DEATH: See also Coroners; Suicides; etc.
Cause of: See also under Accidents; Automobiles, accidents; under name of specific diseases, conditions and substance
cause of (clinical) in myocardial infarction, [Rathe] ★102
cause of, fatal mistake from confusing procaine and percaine, 780
cause of, from certain diseases in husbands and wives, [Ciocco] 1069—ab
cause of, from illuminating gas with door and window open, 577
cause of in those past 50, [Thewlis] ★750
cause of, probably from cocaine, 166; [Stapleton] 642—C
from apoplexy, seasonal frequency, 410
mortuary services, identification, listing the dead in Boston fire disaster, [Faxon & Churchill] ★1385
mortuary services; identification tags for all civilians, OCD Bulletin, 5, 542
of Fetus: See Stillbirth
of Physicians: See list of deaths at end of letter D
operating room, [Turner] 648—ab
Rate: See Vital Statistics
snapshots of: mortality summaries, 926—E
speed of, and bullet wounds of pulmonary vessels, 1080
sudden, after test game due to persistent thymus, [Cluver] 1161—ab
sudden, from coronary occlusion in healthy (?) soldier, [Sterling] 1067—ab
sudden, from mercurial diuretics, [Salzer] 227—C
sudden, massive hemorrhage into brain tumor, [Globus & Sapirstein] ★348
sudden, on physical exertion: coronary occlusion, [Master] 392—C; (in soldier) [Sterling] 955—ab
DEBTS, liability for, of those entering military service, (Bureau report) **118:** 306; **119:** 1113; **120:** 539
DECALCIFICATION: See Teeth
DECIDUA: See Endometrium
DECONTAMINATION: See Gas warfare
DEFENSE: See Medicine and the War; World War II
DEFERMENT, Military: See Medicine and the War
DEFICIENCY DISEASE: See Beriberi; Nutrition; Rickets; Vitamins deficiencies
DEFORMITIES: See Abnormalities (cross reference); Crippled; Poliomyelitis
DEGENERATION: See Thyroid
DEGLUTITION: See Swallowing
DEGREE, M.D. 5 years after high school, 850—OS
DEHYDRATION, food: effect on vitamin content, [Kohman] ★837; 855
food in powder and in blocks, England, 855
in skull fracture, [Mock & Mock] ★499; (discussion) [Summerville] 505—ab
milk (dried) in lumps in Germany, 971
sea water enemas to relieve, [Bradish & others] ★683
DEHYDROCHOLATE, Sodium, N. N. R. (Lakeside), 1307
DEHYDROCORTICOSTERONE (substance A of Kendall) antifibromatogenic activity, [Lipschütz] ★174
de **KRUIF, PAUL**, "Found: One day cure for syphilis" in *Reader's Digest*, 48—E
not a member of the A. M. A., (dispatch from) 962; (telegram from Dr. West) 963
testimony at Pepper hearings, 840—E; 922—E; 940
DELAFIELD'S "emphysema mixture," [Schulman] 1157—C
DE LEE Memorial Fund, 1048
DELIVERY: See Labor
DEMENTIA PARALYTICA patients, concentrated program for, Illinois, 1406
DEMENTIA PRECOX, treatment amphetamine sulfate barbiturate, [Davidoff] 239—ab
treatment, cold, [Smith] 1430—ab
treatment, insulin shock, [Quaranta] 571—ab

DENTAL Caries: See Teeth
Practice Acts: See Medicolegal Abstracts at end of letter M
DENTISTRY: See also Jaws; Teeth
American Dental Association, (Commander Wells president-elect) 135
care by state agencies, 1325—OS
dental-medical meeting, New York, 1149
dentists in training to aid physicians, 543
dentists will not extract teeth in menstruating woman, 1079
Harvard School of Dental Medicine administrative committee, 1147
Institute on war medicine for dentists, Chicago, 631
mobile dental unit, Mich., 1407
services adequate for German population, 1313
DEODORIZATION: See Odor
DEPARTMENT Stores: See Stores
DEPENDENTS: See also under Children; Physicians, Indigent
benefits accorded: soldiers' and sailors' civil relief act amendments, (Bureau reports) 540
medical care for wives and infants of men in military service, 47—E; 846; (Missouri) 974
DEPILATORIES: See Hair
DEPRESSION, Mental: See Mental Depression
DERMATITIS: See also Eczema
Antidermatitis Factor: See Pyridoxine
contact, in infants, 490
exfoliative, from diethylstilbestrol, [Kasselberg] ★117
facial, in infants, 490
from vitamin C deficiency, 1262
from wearing rubber masks, 127—E; [Petro] 157—ab
herpetiformis, bullous, [Goodman] 478—ab
Industrial: See Industrial Dermatoses
of scalp and permanent wave solutions, 657
Poison Ivy: See Rhus
venenata-like lesions from sulfathiazole, [Dennie] ★197
DERMATOBIA hominis (warble fly): See Myiasis
DERMATOLOGY, American Board of, examination, 384
DERMATOPHYTOSIS, H. V. 222, 66—BI
outbreak of ringworm, Philadelphia, 1149
S. C. S. Athlete's Foot Salve, 1334—BI
treatment, radium, for Hongkong foot, [Vassiliadis] 719—ab
treatment, sodium thiosulfate ("Hypo") baths for athlete's foot, [Gould] 1057—C
DERMATOSIS: See Industrial Dermatoses; Skin disease
DERVITA, 307—BI
DESENSITIZATION: See Anaphylaxis and Allergy
DESERT FEVER: See Coccidioidomycosis
DESOXYCORTICOSTERONE acetate, effect for postoperative shock, [Koster] 398—ab
acetate for Addison's disease, (implanted) [Thorn] 152—ab; (sublingually) [Wilson] 570—ab; (implanted) [Jonas] 798—ab; [Engel] 1430—ab
acetate for emaciation, [Saurer] 485—ab
acetate for Simmonds' disease, [Williams] 1250—ab
antifibromatogenic activity, [Lipschütz] ★171
prophylaxis for shock from massive venous thrombosis, [Katz] 718—ab
DETERGENTS: See also Soap
Zephiran Chloride, N. N. R. (description) 289; (Alba) 289
DEXTROSE, effect on gastric secretion, [Thomas] ★737
N. N. R., (Breon, Flint, Eaton) 45; (Parke, Davis) 373; (Upjohn) 763; (Continental Hospital Lab.) 1127
DIAB Reducers, 785—BI
DIABETES, BRONZE: See Hemochromatosis
DIABETES INSIPIDUS, pitressin and adrenal cortex extract for, [Anderson] 1066—ab
DIABETES MELLITUS, acidosis, plasma transfusion not indicated, 658
arteriosclerosis in, [Lisa & others] ★192; (correction) 384
blood sugar, thymus hormone effect on, [Bomskov] 1258—ab
campaign against, quotation translated from Naunyn (1906), also from Lukens and Dohan (1942), [Joslin] 860—C
dicoumarin effect, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Butsch & Stewart] ★1025
eye changes in young patients, [O'Brien & Allen] ★190
eye hemorrhages in, 491
eyes in: retinitis, [Anderson] 1163—ab
food rationing for patients, England, 1240
heredity, anticipation in, [Woodyatt & Spetz] ★602
in children, patients surviving more than 20 years, [Eisele] ★188
insulin allergy, [Goldner] 1341—ab; [Watson] 1432—ab
insulin in, intermediate action of soluble and protamine zinc insulin mixtures, [Colwell] 73—ab
mild, probable, reject for military service? 996
origin and progress, [Colwell] 1431—ab
pentosuria and, [Moss & Walker] ★25
pharmacodynamics of coffee, 140
DIABETES MELLITUS—Continued
pheochromocytoma with hypermetabolism, [McCullagh] 234—ab
statistical information by American Diabetes Association, 216
urine sugar analysis: Clinitest, 491
DIAGNOSIS: See also Clinical; under names of specific diseases
oral, American Association for the Advancement of, meeting canceled, 464
DIARRHEA: See also Dysentery
acute, sulfathiazole and sulfaguanidine for, [Halpern] 720—ab
epidemic, in indigent ward, 5 deaths, Mich., 59
epidemic in newborn, Ohio, 853
in Madrid war patients, [Jiménez] 1257—ab
treatment, sulfaguanidine toxicity, [Cole] ★196
DIASTASE in Blood: See Blood
in Urine: See Urine
DIATHERMY, short wave apparatus accepted: Aloe unit (Admiral Model) 204; (Commander Model) 372
short wave apparatus: unwarranted claims, (Merit) 1156—BI; (United) 1156—BI
surgical, electrocoagulation for excessive hair, 326
unusual reaction to short wave exposure, (replies), [Aurello, Ravenna] 412
DICHLOROETHYL Sulfide: See *di*Chloroethyl Sulfide
DICOUMARIN: [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Bollman & Preston] ★1021; [Butsch & Stewart] ★1025; 1040—E; [Butsch] 1249—ab
DICTION: See Terminology
DICUMAROL, [Shapiro, Chen] 1024—ab
DIET: See also Food; Infants, feeding; Nutrition; Vitamins
American, low income of 1926 and 1851 (for adult men), (Council report) 764
American, thiamine in, [Kohl] 69—C
Army ration, [Howe] ★93
Between-Meal Lunches: See Food
bread (white vs. brown), iron exchanges of adults on, [Widdowson] 82—ab
Calories in: See Calories
Carbohydrate in: See Carbohydrates
Craving in: See Appetite
DAILY DIET, George Cary Earnist "Health Booklets," 66—BI
Deficiency: See Nutrition deficiency
English, analysis, for adult men, [Wilder & Keys] ★534; (Council report) 764
Fat in: See Fat
feeding of dogs, 849
in Pregnancy: See Pregnancy
Lunches: See under Food
Navy ration, [Brown] ★96
Protein in: See Protein
Reducing: See Obesity, treatment
research by Nutrition Foundation, Inc., 374—E; 1051
sodium chloride in, relation to blood volume, [Krauel] 653—ab
Soldiers: See Diet, Army ration; Medicine and the War, nutrition
Therapeutic: See Blood Pressure, high; Hay Fever; Obesity; Peptic Ulcer; Tuberculosis, Pulmonary, treatment
DIETHYLSTILBESTROL, breast cancer in 2 men from handling, [Scarff] 406—ab
exfoliative dermatitis due to, [Kasselberg] ★117
N.N.R., (ampules, Lakeside) 125; (tablets, suppositories, ampuls, Winthrop) 125; (Endo; Lakeside) 1307
standardization, (Council report) 921
treatment of arthritis, 411
treatment of habitual abortion and premature labor, [Karnaky] 866—ab
treatment of kraurosis vulvae, 801
treatment of nocturnal erections in man of 57, 656
treatment of prostate cancer, [Alyea & Henderson] ★1099; [Gutman] ★1115; [Herbst] ★1116
treatment of prostate hypertrophy and cancer, [Keyser] 1255—ab
DIETITIANS, Army, shortens course, 1045
DIGESTION: See Indigestion
DIGESTIVE SYSTEM: See also under names of specific organs
disease, and military service, [Kantor] ★254
DIGITALIS compared with lanatoside C, effect on myocardium, [Tandowsky] 1425—ab
DIHYDROTACHYSTEROL treatment for parathyroid tetany in pregnancy, 87
treatment of hypoparathyroidism, 411
DINITROTOLUENE: See *di*Nitrotoluene
*para*DIMETHYLAMINOBENZALDEHYDE, test for urine sulfonamide, [Monto] 239—ab
DIMETHYLTHIANTHRENE treatment of scabies, [Gordon] 241—ab
DIPHTHERIA, anatoxin and tuberculosis, [Huët] 321—ab
antitoxin, serum sickness and anaphylaxis in man, 536—E
epidemics and shifts in wartime population, 767—E
heart disorders in children; electrocardiography, [Neubauer] 796—ab
immunization (combined), [Miller] 316—ab
DIPHTHERIA—Continued
immunization, Ia., (compulsory rejected) 299; (included with smallpox) 545
immunization of adults, [Leete] 867—ab
immunization, reimmunization of children 5 or 6 years later, [Volk] 313—ab
laryngeal stenosis after; insert rubber section for, [Jesberg] ★1000
nasal, sulfanilamide in, [Boissard] 158—ab
pathogenesis, vs. gas bacilli dissemination, [Lippelt] 1346—ab
DIPHTHEROIDS: See Corynebacterium
DIRECTORY: See also American Medical Directory
of Industrial Hygiene Personnel, 136
DIRT: See Dust
Removal of: See Detergents; Soap
DISABILITY: See also Crippled
from digestive disease in soldiers, [Kantor] ★259
Industrial: See Industrial Accidents; Workmen's Compensation
Insurance: See Insurance
intermittent hypothermia with disabling hyperhidrosis, [Hoffman & Pobirs] ★445
of shoulder and arm; procaine infiltration for, [Travell & others] ★417
DISASTER, Cocoanut Grove fire in Boston, 1223; [Faxon & Churchill] ★1385
DISEASE: See also Death; Diagnosis; Health
Carriers: See Dysentery: Meningococcus; Typhoid
Deficiency: See Deficiency Disease (cross reference)
Disabling: See Disability
Epidemics: See Epidemics
Hazard: See Industrial Diseases
Industrial: See Industrial Diseases
Mental: See Mental Disorders
Nomenclature: See Terminology
Physical-Mental Relationship: See Psychosomatic Medicine
Rate: See Vital Statistics
reportable industrial disease, Council discusses, 42
reportable: rheumatic fever Cincinnati, 776
Ryle urges wider clinical study, 1151
Sickness Insurance: See Insurance, health
Treatment of: See Therapeutics
DISHES: See Cooking and Eating Utensils
DISHWASHING, water temperature for; chlorine disinfectant value (Dr. Bristol's subcommittee report), ★371; 376—E
DISINFECTION: See also Germicides; Sterilization, Bacterial
of Air: See Air
Zephiran Chloride, N. N. R. (description), 289; (Alba), 289
DISLOCATION: See Patella
DISPENSARIES: See Clinics
DIURESIS AND DIURETICS, alcohol, in man, [Eggleton] 1071—ab
mercurial, [Salzer] 227—C
tissue: potassium, [Bansi] 653—ab
DIVERTICULUM: See Stomach; Urethra
Meckel's: See Intestines
DIVISION of Medical Intelligence, concerns disease in foreign countries, 1044
DIVORCE: See "Marriage and Divorce" under Medicolegal Abstracts at end of letter M
DIZZINESS: See Vertigo
DOCTOR: See also Physicians
Degree: See Degree
Doctors at War: See American Medical Association radio program
Doctors' Orchestra suspends activities, O., 1237
Trade names beginning with "Dr.": See under surname concerned
DOGS, feeding of, 849
sterilization of bitches by x-rays, 577
DOHAN, F. C., quotation from on diabetes, [Joslin] 860—C
DONATIONS: See Foundations; Hospitals; Research grants; University
DONOR: See Blood Transfusion
DORNO, CARL, death, 1153
DOUCHE, M.D. Medicated Powder, 641—BI
DR.: Trade names beginning with: See under surname concerned
DRAFT; Draft Board; Draftee: See Medicine and the War
DRAINAGE: See Cerebrospinal fluid
DRAWING: See Art
DRESSINGS: See Medical Supplies
DRIED Food: See Dehydration
Serum: See Serum
DRINKING cups, self-sterilizing plastics, 127—E
DRINKS: See Beverages
DRIP Method: See Peptic Ulcer treatment; Tuberculosis, treatment
DRIVER'S License: See Automobiles
DROPSY: See Ascites; Edema
DROSSES, industrial poisoning, 1079
DROWNING, time required for different phases; difference in salt or fresh water; floating of drowned body, 871
DRUGGISTS: See Pharmacists
DRUGS: See also Medical Supplies; Medicolegal Abstracts at end of letter M
Addiction to: See under names of specific drugs

DRUGS—Continued
control of medicines in Switzerland, 1153
Dermatitis from: See Dermatitis; Eruptions
Formulary: See Formulary
increasing use by Germans, 1403
N. N. R.: See American Medical Association and under names of specific drugs
officials organize for emergencies, 709
pharmacists say physicians should not dispense medicines, England, 780
DRUNKENNESS: See Alcoholism; Medicolegal Abstracts at end of letter M
DUBLIN, LOUIS L., statement on declining pneumonia death rate, 456—E
DUCTLESS GLANDS: See Endocrine Glands
DUFF, P., & Sons, establishes industrial fellowships, 776
DUODENUM, acidity of ulcer bearing area, [Berk] 987—ab
bacteriology preceding choledochotomy, [Elkeles] 1162—ab
Ulcer: See Peptic Ulcer
vasoconstriction, effects of dysentery toxin, 1310—E
DuPONT Velutex Perforated Reducers, 785—BI
DUPUYTREN'S Contracture: See Contracture
DURANTE Method: See Osteomyelitis
DUST, chemical, effect on teeth and gums, [Schour & Sarnat] *1203
coffee, inhalation hazard, 412
Disease from Inhaling: See Pneumonoconiosis
house, allergy to, 1444
Removal of: See Detergents
DUSTING POWDERS, sulfonamide unsterile, tetanus from, [Welch & others] *361
DWARFISM, Renal: See Osteodystrophy
DYSCHONDROPLASIA deformans, hereditary, [Jiménez-Díaz] 1257—ab
DYES: See Congo Red; Eyelash dye; Hair dye; Methylrosaniline; Methylthionine Chloride
DYSENTERY: See also Diarrhea
bacillary, bacteriophage for, [Compton] 319—ab
bacillary, in infants and children, calcium for, [Block] 480—ab
bacillary, in the Middle East, [Hone] 484—ab
bacillary, outbreak, Kansas, 973
carriers, salmonella and shigella, [Vaccaro] 407—ab
epidemic in German camps, [Dötzer] 797—ab; 1346—ab
epidemic Sonne, sulfathiazole in; finger cot method to obtain rectal cultures, [Yannet & others] *184
DYSENTERY—Continued
in U. S. Army, [Kantor] *254
toxin, constitutional effects: shocklike hemoconcentration and duodenal vasoconstriction, 1310—E
DYSMENORRHEA, treatment, amphetamine sulfate or psychotherapy, [Brown] 400—ab
DYSPEPSIA: See Indigestion
DYSPHAGIA: See Swallowing
DYSPHEMIA (stuttering): See Speech disorders
DYSPNEA: See also Asthma
in myasthenia gravis with acute onset in child, [Lieberman] *1209
sighing, differentiation from asthma, [Browning] 1343—ab
DYSTOCIA: See under Labor
DYSTROPHY: See also Lipodystrophy; Osteodystrophy
dystocia syndrome, [Williams] 1345—ab
Fatigue: See Fracture, fatigue
Muscular: See also Myasthenia gravis
muscular, pseudohypertrophic progressive, symmetrical enlargement of right arm, 995
muscular, vitamin B_1, B_6 and E treatment, [Hawke] 566—ab
muscular, vitamin E for, [Blakeslee] 650—ab; [Pohl] 1162—ab

DEATHS

Abbott, Luther M., 469
Abernethy, Miles Burwell, 143
Adams, Charles Waldron, 981
Adams, Francis Page, 981
Adams, Frederick Barnard, 223
Adams, Isaac, 223
Adams, James L., 468
Adler, Leopold, 551
Aikins, Henry Wilberforce, 388
Albert, Lionel Louis, 1056
Albi, Michael Charles, 783
Allan, John Gillison, 142
Allen, Adelbert Beeman, 1333
Allen, Estes, 981
Allen, Omer Frank, 142
Alliegro, Alfred, 224
Alt, Charles Martin, 1413
Altman, Emil, 388
Ambrose, Uryal C., 551
Amos, Thomas Henry, Jr., 306
Anderson, Albert A., 469
Anderson, Arthur J., 1412
Anderson, Elmer Ellsworth, 224
Anderson, Henry Osgood, 1413
Anderson, Herbert Claude: See Andersson, Herbert Claude
Anderson, John Victor, 222
Anderson, Oscar, 550
Anderson, Robert Morrison, 222
Andersson, Herbert Claude, 223
Andrews, William Walter, 306
Appleton, Thomas J., 551
Armentrout, John F., 713
Armstrong, Edwin E., 390
Armstrong, Newell E., 1056
Armstrong, Oscar Samuel, 222
Arnold, Benjamin Clayton, 1413
Aronson, Emil, 142
Askew, Sherman A., 224
Aszman, Max, 306
Atkinson, James William, 223
Aussendorf, Carl Felix, 389
Austin, James S., 713
Austin, Mysta L.: See Hendricks, Mysta L. Austin
Avary, James Corbin, 981
Avery, Moses Nathan, 639
Axford, William Homer, 550

B

Bacon, Ralph Frederick, 389
Baird, John, 1056
Baird, Joseph Charles, 304
Baird, Wilson Davis, Jr., 468
Baldwin, Fayette Harding, 467
Baldwin, Gilman Erastus, 1242
Baldwin, Harold Levi, 306
Baldwin, Horace Goodyear, 224
Balfe, Thomas Hugh, 389
Bancroft, Josiah Dozier, 639
Barber, Kate Wilde: See Wilde-Glass, Kate
Barber, Robert T. J., 306
Bardwell, Walter Stanley, 389
Barenbaum, Louis, 143
Barger, George S., 713
Barkhurst, Silas Osborne, 1155
Barnes, Elbert Maltby, 1056
Barnes, Florence L., 390
Barnett, Daniel Emmett, 1333
Barnett, William Carroll, 859
Barrie, Howard Greene, 639
Bartholomew, James Nelson, 712
Bartlett, Lewis Leroy, 1412
Bartlett, Martin Johnson, 551
Bates, Harold Elliott, 305
Beacom, Daniel Fisher, 306
Beam, Ulysses S. G., 1413
Beatie, Charles Andrew, 143
Beauchamp, Frank Erastus, 469
Beck, John Malcolm, 305
Beck, Joseph Clar, 712
Becker, Bernard Albert, 639
Becker, Conrad Joseph, 1413
Becker, John Henry, 784
Beeson, Henry Oliver, 144
Bell, Fred Harrison, 469
Bemis, George Arthur, 142
Bennett, Asel James, 142
Bennett, James Clark, Jr., 859
Bennett, William Robert, 859
Bergholz, Eugene Adolf, 1056
Bergner, Elizabeth Anne, 858
Bergtold, Ella M., 1413
Bernhard, James Michael, 783
Berninger, Adam Isaiah, 390
Berry, Fifield B., 784
Berry, William A., 144
Besser, Herman, 712
Best, Herbert Hustis, 469
Best, Robert, 143
Beveridge, William W., 143
Beyer, Christian Herman, 469
Bibbins, Charles Nathaniel, 143
Bickley, William Henry, 221
Bigony, John Charlton, 1155
Billings, William Henry, 224
Bindley, James Hiram, 1242
Binford, Mary L.: See Bruner, Mary Ladd
Bird, Edward H., 859
Birkett, Herbert Stanley, 304
Bischofs-Werder, Karl Heinz: See Bishop, Charles Heinz
Bishop, Charles Heinz, 639
Blackmarr, Frank Hamlin, 1333
Blackshear, Thomas Edward, 551
Blackshear, William Joseph, 468
Blair, Herbert George Finley, 469
Blakely, David Newton, 859
Blanchard, James F., 1056
Blankenship, William R., 390
Blaszczak, Ladimer Joseph, 467
Bodamer, Harvey W., 713
Bodley, James Wiley, 1154
Bolender, Clarence S., 1333
Bond, Aaron John, 784
Bond, Roy Armstrong, 1333
Bonney, Sherman Grant, 1412
Bontempo, Louis Anthony, 1055
Booher, Jay C., 224
Booker, Lewis, 638
Boone, Howard B., 469
Botkin, Louis C., 981
Botts, Andrew T., 306
Bowden, Coley C., 389
Bowdoin, Josephus J. P., 221
Bowers, William Sidney, 389
Bowman, Albert L., 1055
Boyd, Benjamin Joseph, 467
Boyer, George Harris, 713
Bradley, Charles Horace, 784
Bradshaw, James Isaac, 1413
Brainard, Mina Logue Fuller Peterson, 1333
Brannon, Patrick J., 468
Brantley, Cornelius H., 390
Branyon, James A., 468
Brasher, George Walter, 65
Brinsmade, William Barrett, 782
Brockinton, W. Muldrow, 1242
Brogden, Maxcy Lee, 143
Brooks, Ezra Rockwell, 224
Brooks, George Frank, 981
Brooks, Thomas Lea, 1056
Brooks, William Don, 1242
Brower, Arthur J., 468
Brown, Benjamin Abner, 222
Brown, Elmer Wellington, 1056
Brown, Horace Wilbert, 551
Brown, Louis M., 1412
Brown, Samuel Albert, 224
Brown, Sterling S., 551
Brown, William Byrne, 1333
Bruner, Mary Ladd, 1333
Bryan, Thomas Albert, 65
Bryson, Herbert James, 1333
Bryson, John Frampton, 550
Buck, Samuel Traner, 859
Buckner, Kossie Long, 223
Bukki, Geza, 1056
Bullard, Thomas Everett, 712
Bullwinkel, Frederick, 981
Burke, F. Edward, 981
Burke, Francis Edward: See Burke, F. Edward
Burnett, Napoleon McDonald, 981
Burnett, Nathan Lowe, 306
Burnham, William Parker, 223
Burroughs, Paul Revere, 305
Burstien, Louis L., 981
Bush, Alden Marland, 306
Bush, Bertha Estell, 141
Bushyhead, J. C., 390
Bussewitz, Maxillian A., 782
Butler, Gavin H., 222
Butman, Winthrop Warren, 306
Butterbaugh, Dorsey Frank: See Butterbaugh, Dorsey Funk
Butterbaugh, Dorsey Funk, 981
Buxton, B. Du Bois, 1242

C

Cahill, James Augustine, Jr., 858
Caldwell, Samuel L., 784
Callaway, George McD., 224
Cameron, Alex D., 143
Camp, Francis Bacon, 388
Camp, Henry Garrison, 783
Campaigne, William Nesbitt, 223
Campbell, Cassius Lightner, 144
Campbell, Clem Stewart, 784
Campbell, Donald M., 141
Campbell, Joseph Arkell, 783
Campbell, William Arthur, 468
Canfield, Amos, 1333
Cannon, Michael Phillip, 144
Caplan, Nelson Howard, 469
Cardwell, George W., 1056
Carlisle, Paris T., 1055
Carmichael, Thomas Harrison, 712
Carpenter, James Givens, 782
Carrell, William Charles: See Carroll, William Charles
Carrière, Henri, 1153
Carroll, William Charles, 390
Carroll, William L., 1056
Carter, Norman John Claude, 1056
Case, Thomas Jefferson, 551
Casparis, Horton Ryan, 979
Cater, Robert Lee, 1056
Cathcart, John Watson, 712
Catlin, William Granville, 784
Centerfit, Samuel Early, 550
Chambers, William James, 468
Chance, Bert Vivian, 713
Chapin, Delia Lucretia, 859
Chapple, Charles L., 469
Charbonneau, Anthime, 141
Cheesman, Le Roy Happer, 388
Cheesman, Walter C., 981
Cheney, Albertus A., 469
Cheney, Ernest Linwood, 1241
Chessman, Leroy Happer: See Cheesman, LeRoy Happer
Christopherson, Willard, 223
Clairmont, Paul, 1153
Clanton, Lee, 1242
Clapsadel, Frederick A., 639
Clark, George Birch, 142
Clark, James Woolslayer, 390
Clark, John Paullett, 1412
Clark, John W., 390
Clark, Peter Selbie, 223
Clark, Thomas Chalmers, 65
Clarke, Frank H., 1154
Clayton, George R., 141
Clewell, William Henry, 639
Cline, Benjamin E., 713
Cline, Robert Laurine, 306
Clough, Harry Duffield, 783
Cloutier, Jean Baptist, 469
Cochran, William James, 550
Coddington, James Keel, 1412
Cole, Paul Arthur, 143
Collins, Herbert Dale, 980
Collmar, Charles, 1333
Colyer, J. R., 306
Combs, Spencer P., 223
Conley, Henry Carroll, 1056
Conley, William C., 305
Connolly, Ethan Leo, 390
Constantian, Raphael Aredis G., 551
Conway, John P., 306
Conway, Steven Joseph, 713
Cook, John Harold, 784
Cook, Robert Abraham Maitland, 1056
Cooke, Uriah Alexander, 389
Coombs, Jerrard Willard, 389
Coon, William Hall, 858
Cooney, Richard West, 712
Cooper, Barnett Herman, 389
Corning, Erastus, 1412
Cosby, Arthur Blackwell, 144
Costello, Thomas Arthur, 1333
Cowan, Edward H., 142
Craig, David B., 1056
Cralle, Robert Bagley Jr., 713
Crice, George William, 306
Critchlow, Charles A., 469
Crombie, Walter Clark, 1413
Crook, Harvey Willis, 388
Crook, W. A., 1056
Crosbie, Frank Jackson, 1155
Crosby, Theodore Smith, 222
Crotty, John Patrick, 859
Crouch, Walter Charles, 222
Croutch, Benjamin Franklin, 980
Cruickshank, Thomas, 305
Crum, Howard Charles, 389
Crume, William Ernest, 143
Crutcher, John Sims, Sr., 1412
Cuden, Nathan Joseph, 1056
Culbertson, Carey, 638
Cunningham, Robert C., 713
Curry, James Walker, 305
Curry, Robert S., 783
Curtis, Louis Franklin, 305
Cutler, Meyer Merle, 1333

D

Daly, Arthur Francis, 551
Dana, William Gillespie, 389
Darlington, John William, 389
Davis, Delmer L., 143
Davis, George Anthony, 713
Davis, Oliver C., 390
Davisson, Robert Rutledge, 389
Dawson, George Waller, 784
Dean, Vernon Albert, 142
Deitrick, Joseph Lynn, 468
Deixel, William C., 390
Delaporte, Antoine Valentine, 713
Del Marcelle, Clarence C., 981
Delpuech, William, 468
Denby, Jefferson M., 1055
Dennis, George A., 469
Denson, John L., 1155
Desmarais, Joseph Henry, 390

Detweiler, Aaron H., 1155
de Vebre, John Witt, 1242
Deyo, Alfred, 224
Dickinson, John Walter, 784
Dillinger, Joseph Rodolphus, 468
Dillon, Charles L., 389
Di Stefano, Luigi Dominick, 468
Dodde, Andrew J., see Dodds, Andrew J.
Dodds, Andrew J., 639
Dodson, James E., 141
Dolan, Lawrence W., 639
Dold, William Elliott, 1332
Donnelley, Neil Patrick, 306
Donnelly, William LeRoy, 784
Doremus, Guy D., 224
Dorno, Carl, 1153
Dorr, Hugh Hill, 858
Dotson, Walter Scott Jr., 783
Doughty, Willie B., 713
Douglass, Earl Campbell, 784
Dove, Joseph David Franklin, 1333
Dowd, Andrew William, 468
Downing, Francis, 390
Downs, Harry Edmond, 550
Doyle, Edgar Clay, 223
Drake, Martin Eugene, 981
Dumbauld, Bunn Allen, 981
Duncan, Charles Henry, 639
Duncan, John H., 784
Dunham, Sydney Algernon, 783
Dunn, John C., 142
Dunn, Louis S., 143
Durkee, Raymond Wilson, 784
Dwyer, Robert, 1333
Dwyer, W. R. L., 1056

E

Eames, William Morse, 389
Eason, Camillus F., 144
Eason, William Benjamin, 143
Easter, Daniel M., 468
Ebeling, Albert William, 142
Eder, Lawrence Frank, 858
Edgar, Thomas Webster, 639
Edmundson, James Dave, 551
Egan, James Charles, 783
Ehrenfest, Hugo, 65
Eklund, Elmer Julius, 1242
Elliott, Annie Roche, 1154
Ellis, Remaldo Vinton, 467
Ellis, Walter Leon, 784
Engle, Oliver C., 305
Ericksen, Hans Christian, 712
Ernesto, Pedro, 1240
Estell, John Daniel, 1413
Estes, Joseph Henderson, 224
Evans, John King, 783
Evans, Luther E., 144
Evans, Milton Harvey, 1056
Everett, Ernest Day, 550
Everson, Clarence Currie, 222
Eves, Curtis Clyde, 638

F

Fabre-Rajotte, Edward Charles, 1055
Fairfield, William Edward, 1241
Farnsworth, Harry Burton, 142
Farnum, Edward J., 550
Fast, William Kirk, 550
Faulbaum, Adolph William, 390
Faxon, William Otis, 1412
Fear, Harold Bonaventure, 1242
Feiner, David, 65
Fenton, Cora D., 143
Ferguson, John, 1055
Ferron, Alphonse, 141
Fewsmith, Joseph Livingston, 1412
Fickel, James G., 1242
Finch, Gilbert Random, 858
Finch, William Clinton, 467
Finkelstein, Herman, 551
Fischer, Frank W., 306
Fisher, George C., 224
Fisher, James Fife, 144
Fisher, Royal San Clare, 468
Fisk, William Burnham, 144
Fitzgerald, John William, 306
FitzGerald, William Henry Hope, 981
Flaniken, T. R., 306
Flatt, Stephen, 223
Fleener, Otto Florea, 224
Fleming, Giles Mortimer, 141
Fleming, Harry Raymond, 1333
Fleming, Hugh Percy, 468
Fleming, James Johnson, 223
Fleming, Stephen, 144
Floyd, John Thomas, 638
Follmer, William Henry, 1333
Foote, Charles Given, 1241
Forbes, Henry Hall, 979
Ford, Sam P., 784
Fortson, Gordon Russell, 223
Foster, Forest Field, 143
Foster, Littleberry Stainback, 782
Fouts, John Daniel, 1412
Fox, James Wilson, 1056
Fox, Robert Ray, 305
Frank, Charles Adolph, 390
Frantz, Charles Peter, 467
Frauenthal, Herman Clay, 388
Frazer, John Lipscomb, 468
Frederick, Clarence Henry, 469
Freeman, Roy Harvey, 306
Freitag, Otto Wilhelm, 305
Frey, James Henry, 1242
Frizzell, J. C., 1056
Frontz, Howard Clinton, 1241
Frost, Gilman Du Bois, 712
Fuller, George Frederick Le Roy, 222
Fuller, Mina L., see Brainard, Mina Logue Fuller Peterson
Funk, David Sieber, 141
Funk, Joseph, 221
Funk, Presly C., 306

G

Gagnon, Eugene, 784
Gaines, Samuel Hubbard, 144
Galbraith, Evan Griffith, 65
Gammon, Landon Hayes, 1242
Gann, Joseph Henry, 468
Gantz, Byron Noble, 639
Garrison, Monroe Joseph, 1056
Gates, William S., 144
Gathings, James C. R., 224
Geiger, Preston David, 1242
Gelder, Edgar Earl, 468
Gemmell, William Thomas, 1056
Genung, Lewell T., 305
George, Henry William, 65
George, James Dudley, 469
George, Leslie Handlin, 1242
Geyelin, Henry Rawle, 221
Gibbons, Myles Aloysius, 222
Gibson, Archie Tilden, 551
Gibson, Charles M., 142
Gifford, Albert Kirby, 223
Gilberson, Peter Christian, 1056
Gilbert, Joseph Pilmoor, 638
Gilbert, Robert Ernest, 388
Gillespie, William Ward: See Dana, William Gillespie
Gilliam, Homer Alphonzo, 1242
Gilliam, Homer Alfonso, see Gilliam, Homer Alphonzo
Gilmer, Clinton H., 469
Glass, Kate Wilde: See Wilde-Glass, Kate
Glaze, Jerome M., 1413
Glenny, W. Harry, 305
Goethals, John, 784
Goldwater, Sigismund Schulz, 781
Good, George, 142
Goodale, Robert H., 981
Goodin, George James, 144
Goodman, Abram Robert, 783
Gorman, John William, 390
Gortner, Ross A., Ph.D., 462
Gourley, Harry Robert, 1056
Grabau, John Christopher, 713
Grady, William F., 639
Graham, Robert Madison, 222
Graham, Robert Newton, 223
Grant, Nelson P., 224
Graves, Lattie, 639
Gray, Arthur D., 1332
Gray, Roger Walker, 224
Gray, William Everett, 65
Green, Boley John, 713
Green, Charles William, 784
Green, Ernest A., 551
Greene, Albert Wilson, 305
Greenewalt, Frank L., 468
Greenwood, Allen, 858
Greenwood, Solomon E., 1413
Gregg, Joseph W., 224
Gregory, Roy Alfred, 141
Griffith, Harvey Milton, 467
Griffith, John Keller, 713
Griswold, Charles Munson, 142
Griswold, Lincoln Bond, 784
Groce, Robert E., 713
Gros, Edmund Louis, 858
Gross, Julius Henry, 221
Groves, Charles Austin, 467
Grubbs, Samuel Bates, 550
Guistwhite, Bruce Hetrick, 141
Gundrum, Frederick F., 1154
Gyori, Helen, 1333

H

Haag, John Philip, 981
Haas, Richard P., 639
Hackett, Frank James, 783
Hackley, Robert Pythian, 551
Hagaman, George Ketcham, 221
Haley, Robert Joseph Sr., 638
Hall, Orvis L. William, 639
Hall, Winfield Scott, 712
Halstead, Frank Riley, 224
Halstead, John L. M., 224
Hambrook, Augustus Joseph, 65
Hamel, George F., 389
Hamill, Edwin, 1155
Hamilton, Wilbur Samuel, 467
Hammond, Henry Powers, 305
Hammond, Thomas V., 1413
Hanchette, John Lovell, 551
Hanna, Fred Robert, 1155
Hansen, Rorbye, 305
Harben, Raymond P., 224
Harbert, Ellis, 305
Harbin, William Pickens, Sr., 1241
Hardy, Frank Prior, 144
Hargrave, Henry Percival, 65
Harlan, Noah Robert, 143
Harper, James Madison, 306
Harper, William, 639
Harr, Harry Thomas, 981
Harrell, Samuel Claude Jr., 550
Harrell, Theodore Hudson, 143
Harris, Arthur Eugene, 223
Harris, David H., 390
Harrison, Benjamin E., 390
Harvey, Charles Edgar, 144
Hasson, John Edward, 468
Hastie, John Dearborn, 306
Hathaway, John C., 390
Hatheway, Clarence Morris, 469
Hauser, Byron B., 144
Hawk, David Jackson, 389
Hawkins, Edward Palestine, 1055
Hawkins, Horace Taylor, 222
Hawley, Charles Lyman K., 390
Haws, Morton Watson, 223
Hayward, Martha, 1241
Hector, William S., 222
Hedrick, William Roy, 1413
Heilman, Millie J., 1242
Heisel, William L., 713
Hemstead, John Luverne, 388
Hendricks, Mysta L. Austin, 1333
Hendricks, Walter E., 390
Hendry, George Ainslie, 1055
Henley, James Thomas, 1155
Henry, Charles Oliver, 144
Henry, Lora M.: See Henry, Vellora Meek
Henry, Vellora Meek, 859
Hensyl, George Stanford, 305
Herbig, Frank Julius, 1154
Hercules, Clarence Araville, 859
Herman, Edward Robert, 1333
Hermann, Gustav Adolph, 224
Herrmann, Edward Robert: See Herman, Edward Robert
Hertzberg, George Robert Reinhold, 550
Hess, George H., 784
Hess, Orrin Aquilla, 389
Hesselgrave, Sherman Sedgwick, 388
Heyde, Jacob Meyer, 551
Heylmun, Harry H., 1412
Heyward, Arthur R., 469
Hibbs, Fred Valentine, 980
Hickey, Clinton G., 65
Hickey, John Phillip, 306
Hicks, Claude Bernard, 224
Higgins, Aaron Locke, 65
Hilburn, Robert Edwin, 1332
Hilger, Carl H. A.: See Hilger, Karl Heinrich A.
Hilger, Karl Heinrich A., 390
Hill, Chester Lee, 390
Hilliard, Ruth, 859
Hillis, David Sweeney, 1055
Hilton, Jesse G., 1413
Hine, Marks Priestley, 551
Hinman, Earl Chester, 141
Hirschfelder, Arthur Douglass, 638
Hirsh, Charles Eliot, 1413
Hobelmann, Frederick William, 143
Hobson, Willis W., 390
Hodgson, Henry W., 142
Hoell, Conrad G., 713
Hoffman, Harry Clyde, 1412
Hoffman, R. Ora, 389
Hogan, Daniel John, 713
Hogan, Edward James, 551
Hogan, James Joseph, 306
Holcombe, Jeff T., 469
Hollenbeck, Henry Stanley, 713
Holly, Eugene De Alton, 222
Holshue, Charles Raymond, 551
Holt, Alonzo Teegarden, 639
Honomichl, Otto Ralph, 981
Hooper, William Franklin, 981
Hoover, John C., 1242
Hopkins, Edward Orson, 468
Hopkins, Henry Wade, 859
Hopkins, Samuel W., 388
Hord, Winn Estille, 222
Horne, George Columbus, 306
Horton, Harold Glover, 550
House, Wallace Belding, 388
Howe, John Bell, 305
Howland, Anson P., 551
Hoy, Clifford Ray, 1412
Hoyle, Hughes-Bayne, 713
Hubert, Joel M., 390
Hudson, William Thomas, 224
Huecker, John, 1413
Huey, Arthur John, 712
Hunsberger, Howard George, 144
Hunter, John Wilson, 223
Hurd, James T., 1332
Hurst, Posey G., 639
Huston, David Trimble, 222
Hyman, Jacob, 1056

I

Iliff, Charles Edwin, 221
Irion, Clifford H., 1413
Ilse, Ludwig, 713
Inks, Charles Andrew, 144
Ireland, Charles Levering, 142
Irwin, William, 224
Iszard, Ralph Joseph, 468

J

Jackson, Algernon Brashear, 980
Jackson, Edward, 781
Jacoby, Alfred, 142
Jacoby, Rudolph, 388
Jaeger, Charles Hope, 639
James-James, John A., 223
Jamieson, David, 1055
Jardon, Frederick Joseph, 390
Jenkins, Leonard Riley, 143
Jenkins, Robert Lee, 1333
Jobse, William P., 222
Johnson, Arnold H., 859
Johnson, Chester Arthur, 223
Johnson, Dennis J., 1056
Johnson, Henry Warren, 1242
Johnson, Jay Clement, 306
Johnson, John Arnason, 142
Johnson, John M., 1055
Johnson, Louis Collins, 712
Johnson, Sallie V., Rutledge, 1242
Johnson, Syvert H., 223
Jones, Ambrose L., 222
Jones, David Thomas, 980
Jones, Edwin Francis, 223
Jones, Glenn Irving, 221
Jones, William John, 1241
Joslyn, Samuel Archie, 1412
Joyce, John William, 784
Joyner, William Henly, 306

K

Kahn, Samuel, 389
Kannary, Edward Leroy, 713
Kaplan, Max, 304
Kartschmar, Aaron: See Kurtzman, Aaron
Kaylor, Thomas D., 981
Keefe, Patrick Henry, 142
Keeley, Thomas H., 784
Keene, Walter Prince, 712
Keller, Vincent Frederick, 859
Kelley, Charles A.: See Kelly, Charles A.
Kelley, Elihu, 981
Kelly, Charles A., 1413
Kelly, Francis Joseph, 783
Kennedy, Edward Matthias, 1155
Kennedy, Oswald Edward, 1055
Kenny, Eugene Joseph, 639
Kernodle, Charles Edward, 1056
Kerr, John Francis Jr., 306
Keyes, Regina Flood: See Roberts, Regina Flood Keyes
Kiersted, Henry Stevens, 144
Kilby, Edgar Ellsworth, 389
Kimball, Grace Niebuhr, 1412
King, Jesse Earl, 713
King, John William de Courcy, 390
King, Leon Earl, 222
King, William Harvey, 305
King, Willis Eldredge, 144
Kirk, William Haley, 859
Kistler, Douglas S., 142
Kitchens, Boze B., 144
Klein, Anthony Eller, 142
Kleiser, Arthur J., 389
Klugh, Oliver Ringwalt, 1056
Knisely, Arthur Lewis, 1056
Knoll, John Jacob, 469
Knox, Robert White, 782
Kohler, Albert Andrew, 1155
Kortschmar, Aron: See Kurtzman, Aaron
Kramer, Martin, 1413
Kumler, William Zeller, 1242
Kurtzman, Aaron, 783
Kutcher, David Jacobs, 1242
Kveton, Emil Nicholas, 981

L

Lacourciere, Henri, 639
La Ferte, William Henry, 390
Laird, John Jamison, 1056
Lamar, Lucius, 305
La Marche, Walter Joseph, 305
Landon, Oren Morrison, 143
Langford, Thomas A., 224
Larner, Thomas Edward, 469
Larose, Armand Ernest, 550
Lassiter, Andrew Joe, 390
Last, Samuel Eder, 712
Lawler, Robert James, 782
Lawrence, Millard Null, 551
Lawton, Franklin Lyman, 783
Leake, Lucius Barton, 1333
Lee, Amesbury, 305
Lesher, David Thomas, 144
Leve, Harold Robert, 221
Levine, Benjamin, 1333
Levy, David J., 783
Lewis, Hartley: See Lewis, Lewis Hartley
Lewis, James B., 1155
Lewis, Lewis Hartley, 1056
Lewis, Ned Overton, 782

Lichenstein, Jacob, 1413
Likes, Elbridge Tidrick, 1242
Lilienblum, Louis Joseph, 305
Liljencrantz, Eric, 980
Liljencrantz, Eric Guy: See Liljencrantz, Eric
Lindsay, William Taylor, 65
Lines, David Arthur, 468
Lines, Mary Louise, 783
Linton, William B., 1241
Liston, Arthur Corliss, 1412
Little, Frederick Bryton, 1241
Littlejohn, Lewis Clinton, 389
Loeb, Sandford, 224
Loeb, Sanford: (See Loeb, Sandford)
Logue, Mina: See Brainard, Mina Logue Fuller Peterson
Lommen, Andreas Pederson, 1242
Long, Edward E.: See Long, Enoch E.
Long, E. Edmund: See Long, Enoch E.
Long, Enoch E., 859
Longenecker, George W., 144
Looney, Walter Winfield, 713
Loop, Aubrey Leighton, 639
Loring, J. Brown, 1154
Lowry, Tanner, 306
Lowry, William Herbert, 221
Loy, Ed N., 1413
Lucey, John Denis, 981
Luhman, Frederick Walter, 469
Lumbard, Joseph Edward, 1154
Lumsden, Charles A., 1242
Lycan, Harry, 784
Lyman, Almon H., 1241
Lyon, Alvin Kerr, 306
Lytle, Isaac Walter, 859

M

McCall, Eddie C., 390
McCall, Reuben Graham, 224
McCartney, Johnson Nichols, 1242
McClary, Spencer Boyd Sr., 713
McClelland, Carl Charles, 304
McClendon, William Head, 306
McConkey, William Andrew M., 224
McConnell, Adelaide Wallerstein, 224
McCready, William Vincent, 1413
McCullough, Frank Edward, 143
McCurdy, Ira Jay, 304
McCurdy, Olive B. C., 1056
Macdonald, Dalraddy L., 469
MacDonald, Daniel, 469
McDonald, Smith Forrest, 1413
McDonough, Fergus Joseph, 1242
McDougald, Wilfried Laurier, 224
MacDowall, John L., 222
MacDowell, John L.: See MacDowall, John L.
MacEvitt, John Cowell, 221
McEvoy, George Albert, 551
McEwen, Peter Campbell, 713
McFarling, John Marion, 1242
McGaughey, Hugh Duncan, 467
MacGillivray, Thomas D., 469
McGovern, James Thomas: See McGoveron, James Thomas
McGoveron, James Thomas, 389
McGregor, John D., 389
MacGregor, Murdock, 1154
McGuinness, John F., 143
MacIvor, James Hamlin, 858
McKelvey, Earl William, 981
Mackey, Edwin Ward, 224
McKinney, Zack H., 1155
MacKinnon, Donald Laughlin, 469
McLaughlin, George Eyerman, 1412
McLaurine, Hugh Farrior, 784
McLean, Hilliard Neil A., 1333
McMahon, Michael James, 858
McNaughton, Walter Thomas, 223
McRae, Thomas Thompson, 390
McWhorter, W. H., 1413
Maggiore, Vincent Giuliano, 1333
Maguy, Walter Adjutor, 469
Mahoney, Daniel Patrick, 224
Mahoney, John Joseph, 65
Mahoney, William J., 222
Major, Samuel Glenn, 981
Makemson, Frank Rawlins, 141
Mallard, James Jefferson, 1413
Mallarian, Krekore H., 306
Mallison, Elizabeth Carr, 981
Malone, Charles, 1055
Maloney, Edward Robert, 782
Manahan, Manning W., 224
Manning, Charles H., 469
Manning, Thomas Francis, 639
Mariner, Napoleon B., 1155
Marlow, Frank William, 782
Marrett, Rolland Lee, 469
Marriott, Henry B., 1055
Marshall, James Frederick Stewart, 143
Marsters, Charles Galitzan, 389
Martin, Thomas Anthony, 144
Martin, William John Francis, 1413
Marvel, George H., 224
Mason, Robert French, 1413
Masters, Luella Mary, 859
Matheson, John Sutherland, 222
Matter, Charles Martin, 1242
Matthews, Brunson Burns, 144
Matthews, Henry James, 144
Matthews, James Dwight, 638
Matthews, James Monroe, 1055
Matthews, William Johnson, 467
Mattison, Samuel Jones, 858
Mattox, Ernest L., 1155
Matz, John Daniel, 388
Mauceri, Gasper Gasper, 468
Mauermann, Julius F., 1413
Maurer, Albert A., 142
Maxwell, George Bancroft, 859
Maxwell, Lewis K., 1242
Mayer, Richard, 1413
Meachem, John Goldesbrough Jr., 712
Meaker, Hughes George, 551
Meckstroth, Charles W., 859
Medlin, Wenzel August, 783
Melcher, Casper Frank, 859
Melcher, Frank C.: See Melcher, Casper Frank
Melerian, Harry, 306
Melnick, Joseph, 639
Meltzer, Sara, 859
Menefee, Albert Olen, 144
Merscher, Harry Leonard, 144
Metivier, Armand Oliva, 143
Metzler, Gottfried Sr., 784
Michela, Luigi Saverio, 550
Middleton, George W., 390
Migely, Walter Louis, 638
Mikolaitis, Casimir John, 306
Miller, Aaron Gable, 224
Miller, Charles Griffin, 713
Miller, Frank Marion, 390
Miller, Frank Oldham, 467
Miller, John Crede, 390
Miller, Joseph, 224
Miller, Julian Davis, 390
Miller, Julian Taylor, 980
Mills, James Henley, 305
Milroy, William Forsyth, 550
Mims, Wright Sylvester, 1413
Miner, Donald, 467
Minor, Edward Geddus, 638
Mitchell, Bryan Lee, 1055
Mitchell, Clifford Morgan, 981
Moffat, Barclay Wellington, 1154
Monahan, David Henry, 1413
Monger, Neal Davidson, 551
Moore, Charles Howard, 388
Moore, Charles Otto, 143
Moore, John William, 639
Moorer, Daniel F., 1055
Morrow, Fred George, 390
Mosby, Charles Virgil, 979
Mossgrove, James Ross, 1241
Mouton, John Franklin, 551
Mowry, Earle A., 859
Mueller, Frederick, 467
Muench, Otto Lewis, 467
Muncaster, Steuart Brown, 712
Murph, Robert Lee, 551
Musgrave, John Knox, 304
Myers, Francis Charles, 143
Myers, William Frederick, 784

N

Nainka, Anthony H., 390
Nause, Fred W., 469
Neare, Clifford Reno, 1333
Nelson, Clyde Vincent Jr., 65
Neumann, Ignac, 784
Nevitt, Charles A., 1155
Newell, George Warren, 65
Newsom, Edward Brandon, 1242
Newson, Edward B.: See Newsom, Edward Brandon
Nicholson, William Freeman, 143
Nimmo, Thomas M., 144
Noland, Clyde Amandee, 1333
Nolen, Isaac Daniel, 1055
Norcross, Edward Powers, 304
Norfleet, Leon Edgar, 639
Norris, Thomas Tilden, 550
Noyes, Rufus King, 551
Nuckols, Marvin E., 468

O

Oast, Samuel Poindexter, 858
O'Brien, Harold Nelson, 1056
O'Brien, Thomas Augustine, 1241
O'Connor, Joseph Augustine, 142
Odbert, Franklin N., 223
Oldham, James P., 1055
Oliver, William E., 390
O'Malley, Gamble Morris, 1242
Ormond, Douglas Thomas, 389
Osmond, Martha Elma, 859
O'Toole, John Laurence, 550
Ottofy, Ladislaus M., 1056
Ottofy, Law M.: See Ottofy, Ladislaus, M.
Overall, James Clyde, 389
Overman, Charles Joseph, 859
Owen, Carl Shuey, 1242

P

Paden, Frank A., 981
Page, William Arrellous, 1055
Pagliuca, Frank Anthony, 1055
Painter, Horace Gibbons, 469
Pairet, J. Frank, 1056
Palamountain, William Bennett, 784
Parke, George Hugh, 981
Parker, Orlie, 306
Parker, William Wallace, 224
Parrish, Merle, 1413
Parsons, Harold Campbell, 858
Patton, Gideon Harmer, 390
Paulson, Knut Waldemar, 223
Payne, Francis Marion, 390
Payne, Joseph, 141
Pearson, Charles Magnus, 639
Peck, John Hyren, 782
Peckham, Harriet C. Waite Van Buren, 305
Pelletier, Anthony Damas Joseph, 469
Perry, Joseph Raymond, 222
Peter, Francis J., 1155
Peter, Luther Crouse, 1055
Peterman, George Elmer, 981
Peters, Warren John, 859
Peterson, Mina Logue Fuller: See Brainard, Mina Logue Fuller Peterson
Peterson, Reuben, 1241
Petr, Francis J.: See Peter, Francis J.
Pettijohn, Orlando B., 469
Petty, Samuel Jesse, 1056
Phillips, Dwight Cortland, 65
Phillips, Joseph Dana, 223
Phinney, Arthur J., 390
Phipard, Willard, 783
Pieper, Ernest John Jr., 389
Pinner, Warren E., 1155
Pitfield, Robert Lucas, 783
Plyler, James Irvin, 469
Pontius, Charles R., 223
Porter, Leslie Spangler, 142
Post, James Louis, 144
Potter, Benjamin Silas, 1056
Potts, Herbert Anthony, 781
Powell, Clyde Vernon, 783
Powell, George McArdle, 306
Powell, James Thomas, 1333
Preucel, Joseph Edward, 389
Pribyl, Hugo Victor, 551
Price, Charles Daniel, 858
Priest, Thomas W., 223
Propper, Julius, 144
Prud'homme, Ernest: See Prud'homme, Joseph Octave Ernest
Prud'homme, Joseph Octave Ernest, 1055
Pruett, David H., 1242

Q

Quenzer, John Fred, 469
Quinn, James Andrew, 306
Quinn, James B., 639

R

Ragan, Charles E., 222
Ragsdale, Albert S. J., 390
Rajotte, Edward Charles: See Fabre-Rajotte, Edward Charles
Ramel, Edwin, 1153
Ramsay, Walter Dekel, 306
Ramsay, William Givens, 1155
Ramsey, Raymond Arthur, 388
Rannells, Charles Henry Jr., 639
Ranson, Stephen Walter, 141
Raterman, Frank Joseph, 468
Ratermann, Frank Joseph: See Raterman, Frank Joseph
Ratliff, Rufus W., 144
Ravich, Simon, 224
Ravold, Amand Nicholas, 781
Raymond, Charles Nevers, 713
Reed, Charles, 550
Reed, Charles Paul, 784
Reglien, Norman Carl, 551
Reich, Leo, 1056
Reid, John David, 1242
Reiner, Alphons John, 859
Reuss, Albert Le Roy, 980
Reynolds, Frank, 1155
Rice, Ephraim D., 1056
Ricen, Leo, 639
Ricketts, Clarence Trimble, 639
Riddell, William Roy, 468
Riddle, Henry Stanley, 1056
Ridlon, Gardner Rich, 1241
Rieger, Charles Louis William, 1155
Ringgold, John W., 1413
Ringness, Henry Raymond, 1155
Ripps, Maurice L., 1154
Ritchie, Harry Parks, 304
Roberts, Frank Aloysius, 980
Roberts, M. H., 1242
Roberts, Regina Flood Keyes, 638
Robertson, Charles Taylor, 713
Robison, John Albert, 858
Robison, William Thomas, 142
Roderick, Charles Edward, 1412
Rodin, Samuel, 305
Roepke, Harry Frank: See Roepke, Henry Frank
Roepke, Henry Frank, 222
Roler, Albert Huribut, 782
Roope, Alfred Plummer, 712
Rosati, Pasquale A., 1333
Rose, Charles Clarence, 550
Rosenberger, Ferdinand, 65
Rosenfeld, Frederick, 144
Rosenfeld, Fritz: See Rosenfeld, Frederick
Ross, Jesse Clifford, 224
Roth, Albert Alexander, 550
Routon, Benjamin Comer, 389
Routon, Comer: See Routon, Benjamin Comer
Row, George Samuel, 469
Rowe, Charles Eckert, 388
Rowland, James Joseph, 304
Rowley, Alfred Merriman, 221
Rubsam, Joseph, 222
Ruggles, E. Wood, 1412
Ruggles, Emory Wood: See Ruggles, E. Wood
Rugh, James Torrance, 638
Rutherford, Martin Casselman, 713
Rutledge, Sallie V.: See Johnson, Sallie V. Rutledge

S

St. Avit, John, 224
Saint Cyr, Emile Dehaye, 1056
Saphier, Jacques Conrad, 1056
Saylin, George Joseph, 469
Scanlon, William Arthur, 390
Schaffner, Philip Michael, 221
Schagen, Cornelis, 551
Scharnagel, Charles E., 784
Scheve, Elmer Frederick, 223
Schiffli, Oswald Felix, 784
Schirmer, Hermann Julius, 1413
Schladermundt, Charles A., 305
Schlink, Francis Henry, 639
Schmaler, Albert Joachim, 223
Scholtz, Moses, 783
Schroeder, Ernest Leonard, 65
Schuhmann, Henry S., 1413
Schwab, Leslie Watts, 468
Searles, Jackson, 469
Seavey, Mark Amberson, 224
Secoy, Edward Ambrose, 469
Service, Charles A., 224
Sexton, Walter Gresham, 782
Shackelford, Alphonse L., 551
Shacklett, James Arthur, 390
Shanahan, Alva A., 306
Shannon, John Richard, 144
Shannon, John Rowlands, 141
Sharpe, Norvelle Wallace, 980
Shaughnessy, Thomas Ahern, 467
Shea, Richard Lambert, 550
Sheets, Alden G., 222
Shellabarger, David W., 551
Shellenberger, Edward Burgin, 712
Shelly, William P., 1242
Sherborn, Charles Davies, 219
Sheridan, William Martin, 1155
Shields, William Grant Jr., 222
Shipp, William Josiah, 1333
Shoemaker, William Toy, 1332
Shoop, Frederic Joseph, 468
Shouldice, James Henry, 223
Shultis, Frederick Charles, 223
Shupert, John Wesley, 305
Sicard, Montgomery Hunt, 550
Silbernagel, Emile S., 1056
Silcocks, William Ethelbert, 304
Silvernale, Faus Peter, 305
Simerman, Philip, 1242
Simon, Morris L., 639
Sinclair, John Peter, 1056
Skinner, Louis Cotten, 783
Slade, Charles Blount, 304
Small, Robert Milford, 981
Smart, L. Gibbons, 783
Smersh, Otto George, 390
Smith, David King, 1154
Smith, Donald F. S., 143
Smith, Frank Ira, 713
Smith, Gilbert Tyson, 782
Smith, Howard Marshall, 469
Smith, James A., 784
Smith, J. Stucky, 469
Smith, Millard Lieser, 1413
Smith, Orrin Joseph, 981
Smith, Richard S., 1155
Smith, Roland Noah, 390
Smith, Warren Hastings, 389
Smith, Wilfred Davy, 783
Smothers, William Jonas, 713
Smythe, Edward Stanhope, 390
Snow, John Curtis, 783
Sommerfield, Otto Charles, 1055
Sondel, Louis Carl, 143
Sosnowski, Julius Christian, 304
Souder, Cloyd L., 639
Southall, James Arden, 143
Southwick, William Warren, 550
Sowder, Charles Robert, 782
Sowell, Norman Briton, 713
Spangler, Arthur Stephenson, 144
Speer, Ross H., 467
Spence, Jesse Austin, 1412
Spiegel, James Christian, 551
Spiers, Homer Waldo, 222
Spitz, Louis, 639

Springer, George N., 551
Stahl, Silas Sterling, 1333
Steger, William T., 224
Stegmenn, Charles W., 859
Steiner, Walter Ralph, 979
Steininger, Joseph Francis, 144
Stephenson, Hugh Watson, 980
Steurer, John Adam, 389
Stevenson, Hugh Allan, 224
Steward, William J., 143
Stewart, Charles B., 468
Stewart, Harry Myrrel, 467
Stewart, John McTyeire, 468
Stich, Benjamin, 467
Stiles, Raymond Cunningham, 784
Stirn, Francis John, 223
Stolp, Rufus B., 1154
Straham, William Homer: See Strahan, William Homer
Strahan, William Homer, 467
Strange, R. T., 784
Streett, Sidney Hamliton, 224
Stretton, Harry H., 551
Strickling, Frank Ellsworth, 143
Strong, James Craig, 1241
Sturdevant, Joel Dixon, 551
Sturgeon, Quincy A., 1333
Stute, John Ellsworth, 223
Summerfield, Otto Chas.: See Somerfield, Otto Chas.
Sumner, Irving Emerson, 1332
Sutton, John Wesley, 389
Swarts, William W., 144
Swetland, Benjamin S., 142
Swift, William James, 1154

T

Tabacnic, Maxwell, 713
Talley, Robert Edward, 784
Tanner, Charles R., 1333
Tappan, William Manning, 551
Taylor, John Q., 859
Taylor, Joseph W., 551
Taylor, Morrison Archible, 1055
Ten Eyck, John De Mott, 1056
Terrell, Alexander Watkins, 468
Terrell, Scurry Latimer, 141
Thayer, Morris Dugan, 224
Thomas, Albert Agnew, 468
Thompson, Chester P., 859
Thompson, David Jesse, 143
Thomsen, Carl H., 1055
Thomson, John Danner, 1413
Thorn, James Aaron, 305
Thorp, Walter Perry, 1242
Timmerman, Ella V., 306
Tinsley, John Robert, 784
Tinsley, Oscar M., 306
Tippie, John Wesley, 142
Titus, Charles William, 1333
Tormey, Thomas William, 143
Towns, William Lewis, 223
Trader, William Northam, 858
Traganza, Frederick Eugene, 468
Tucker, Waverly Stafford, 858
Tucker, William Lee, 551
Tuttle, Thomas Dyer, 221
Tweed, James Renwick, 306
Twyman, Edwin Willis, 784
Tyldesley, Harry, 468

U

Unger, Isador Mack, 858
Urbom, Carl V., 1333

V

Vail, William Henry II, 859
Vaillancourt, Joseph U., 389
Van Alstyne, Eleanor Van Ness, 713
Van Arsdel, Ernest Bland, 713
Van Buren, Hattie C.: See Peckham, Harriett C. Waite Van Buren
Vance, Charles E., 1242
Van Keuren, Jesse Philip, 638
Van Ornam, Vilas George, 389
Vaughan, Benjamin Warren, 144
Vaught, Jewel Holt, 1333
Venable, Stella Cox, 1413
Vinsonhaler, Frank, 550
von Spiegel, James Christian: See Spiegel, James Christian
Voorhees, Joseph Lane: See Voorhies, Joseph Lane
Voorhies, Joseph Lane, 1333

W

Wadlinger, Charles Vincent, 468
Wagner, Carl Phillip, 388
Wailes, Henry Stevenson, 1155
Wales, Albert H., 65
Walker, Irwin Seth, 550
Walker, Jefferson Davis, 1055
Walker, John Larkin, 551
Wall, Harry, 305
Wall, Lee Jackson, 389
Wallerstein, Adelaide: See McConnell, Adelaide Wallerstein
Wallner, John S., 1413
Wallschlaeger, George Gustave, 141
Walsh, Charles Joseph, 639
Walther, Joseph Edward, 859
Ward, Parker Myles, 713
Warren, Homer Samuel, Jr., 859
Warren, John Rush, 1413
Warrin, Marshall Lord, 469
Washburn, Lawrence Lee, 467
Wassell, George Clayton, 784
Watkins, Charles D., 142
Watkins, Samuel Evans, 467
Wayne, Wallace Dickenson, 859
Weatherhead, David Este, 1413
Weaver, John Henry, 305
Weber, Fred Carl, 65
Weber, Randall Jackson, 859
Weed, John William, 1242
Weibel, Elmer Grant, 783
Weible, Ralph Emerson, 1412
Weil, Abram Lincoln, 224
Weiler, George Leo, 144
Weinberger, Nelson Shelly, 65
Weiss, Frank Henry, 1155
Welker, George E., 469
Wen Glesky, Julius F., see Wenn, Julius Fernan
Wenn, Julius Fernan, 638
Wenner, Thomas Jefferson, 142
Wessels, Lewis C., 638
West, John Quincy Adams, 390
Westbrook, Paul Arthur, 469
Westcott, Harold Flavell, 65
Westerfield, Joseph S., 141
Westney, Alfred Washington, 1055
Whiffen, Percy Edward, 713
Whitaker, Frederick Stanly, 390
White, Benjamin S., 142
White, Charles James, 305
White, Daniel Francis, 783
White, Frank E., 389
White, Frank S., 304
White, John Joseph, 388
White, Lewis Cass, 551
White, Robert Potts, 713
Whiteside, George Henry Whitaker, 224
Whitlock, William Albert Jr., 223
Whitmore, Orman Stafford, 469
Whittington, William Eugene, 223
Wickensimer, John B., 143
Wild, Frederick Arthur, 141
Wiles, Edward William, 1242
Wilde, Kate: See Wilde-Glass, Kate
Wilde-Glass, Kate, 224
Wilfley, Ota Samuel, 223
Wilkes, Le Roy Augustus, 1241
Willard, Harry Gaylord, 388
Williams, Charles Sanford, 306
Williams, Chastine G., 1413
Williams, James Thomas, 713
Williams, Judson Thomas, 1056
Williams, L. Lester, 143
Williams, Lester: See Williams, L. Lester
Williams, Margaret Brinkerhoff, 305
Williams, Robert Otis, 224
Williamson, Alvis A., 65
Williamson, Homer D., 390
Wilson, Clair, 784
Wilson, William M., 224
Wimberley, Joseph Pawell, 551
Winfrey, Joseph Hill, 639
Winner, Jacob Louis, 144
Winter, James Henry, 390
Wissig, George Le Roy, 467
Witbeck, Charles Lansing, 1413
Withers, George Lee, 1242
Witmer, Albert Ferree, 223
Witter, Frank Paine, 389
Woessner, Nicholas E., 469
Wolf, Adam Blasius, 639
Wolfe, Channing Elmer, 859
Wolff, Gustav, 1153
Wood, Amos De Russia, 639
Wood, William Almon, 389
Woodruff, Charles S., 390
Woodruff, Eugene E., 859
Woodside, Edward E., 1242
Woodworth, Leonard Forrest, 389
Woolley, Ida M., 306
Work, Hubert, 1332
Worl, Edward Eli, 1155
Wortis, Herman Irving, 390
Wright, William Eldridge, 224
Wrigley, Arthur, 1413
Wyatt, Robert Bird, 390
Wycoff, Charles B., 1155
Wyman, Arthur E., 551

Y

Yager, William Seth, 223
Yarnell, Oliver Benjamin, 1055
Young, Alva Andrew, 388
Young, Melvin Leonard, 224

Z

Zapolan, Wolfe, 306
Zoll, Edward C., 1413

E

EALY'S (Dr. T. F.) Baby Powders, 552—BI
EAR: See also Deafness; Hearing; Otolaryngology
bacteria culture, also irrigation in otitis media and mastoiditis, [DeSanctis & others] ★1087
epithelioma of skin of, x-rays and radium for, [Driver] 478—ab
hyperostosis and exostosis, due to cold water swimming, [Fowler] 1340—ab
"membrane" in external auditory canal, 872
middle, in fliers, [Carson] ★5; (vestibular mechanism in tailspins) ★7; 1309—E
Middle, Suppuration of: See Otitis Media
middle, Valsalva's method of inflating, [McBean] 642—C
screw worms infestation; chloroform for, [Turnbull & Franklin] ★117
surgery, modified fenestration technic, [Shambaugh] 397—ab
EARNIST, GEORGE CARY, "Health Booklets," 66—BI
EATING: See Feeding (cross reference); Food Utensils: See Cooking and Eating Utensils
EBERTHELLA, atypical strain, typhoid due to, [Harrell] 721—ab
ECHINOCOCCOSIS, National Conference Against, Buenos Aires, 387
ECLAMPSIA, etiology, [Sewall] 864—ab
incidence at Johns Hopkins Hospital 1896-1941, [Eastman & Whitridge] ★729
phenomenon and placental ischemia, [Young] 484—ab
preeclampsia, proteinuria in, [Dieckmann & Kramer] ★590; (discussion) 598
ECONOMICS, MEDICAL: See Fees; Hospitals, expense insurance; Medical Service; Medicine, state; etc.
ECZEMA, Eczematone, 552—BI
facial, in infants, 490
McK. Edwards Remedy, 641—BI
ECZEMATONE, 552—BI
EDEMA: See also Ascites; Lymphedema; under organ or structure affected
angioneurotic, after sulfathiazole orally, [Dennie] ★197
from continuous leakage of lymph, 491
massive, of feet and ankles, undetermined cause, 577
EDITORS, Annual Conference of: See American Medical Association Annual Conference
EDUCATION: See also Children, school; Health education; Schools; Students; University
EDUCATION—Continued
achievements of diabetics, [Eisele] ★188
Board of: See Schools
U. S. Senate Committee on: See Pepper hearings
EDUCATION, MEDICAL: See also Interns; Schools, Medical; Students, Medical; University
American Board of Obstetrics and Gynecology, objectives, [Dannreuther] ★169
A. M. A. Council on: See American Medical Association
British Medical Students' Association recommendations, 1410
Course: See also subhead: Graduate
course in chemical warfare, Baltimore, 210
course in electrocardiographic interpretation, Chicago, 851
course in gas warfare at Ohio State, 853
course in industrial dermatoses, Chicago, 971
course in industrial health, (teaching day in, N. Y.) 215; (course for physicians at Yale) 298; (at Long Island) 300; 632; (at Loyola) 631; (graduate, Philadelphia) 1149; (New York Post-Graduate School) 1327
course in ophthalmology, Va., 1408
course, seminar in legal medicine, Mass., 136
courses in neurologic surgery for Army doctors, 770
courses (refresher), N. Y.; (venereal disease) 215; (cardiovascular disease) 383
curriculum (accelerated) at Baylor, 777
curriculum (accelerated), federal aid (loans) for students pursuing, 132
Fellowships: See Fellowships
graduate, after 3 years' war, England, 1410
graduate, annual postgraduate day, Toledo, 853
graduate, at school of public health, Mexico, 466
graduate conference, (Oklahoma) 633; (Illinois), 707
graduate, continuation courses for practitioners (Council report) ★554; ★1415
graduate, course at Tulane, 973
graduate, extramural course, Mich., 462
graduate, home study courses, Maine, 59
graduate in otolaryngology, [Harkness] ★327
graduate, Institute for Psychoanalysis discussion on war neuroses, 381
graduate institute on industrial problems in medical practice, 974
graduate instruction, Okla. 708
graduate, Post Graduate Medical Assembly of South Texas, 853
EDUCATION, MEDICAL—Continued
graduate training offered; secure information from A. M. A. Council, 923—E
Inter-American medical relationships, [Fishbein] ★1186
premedical, [Reimann] 1336—C
premedical work and the 18 year old draftee, 1042—E; [Hillman] ★1142; [Rowntree] ★1229
premedical work recommended; MD 5 years after high school, 850
Selective Service and, [Rowntree] ★1228; (teaching) ★1229
teaching anatomy, reform in England, 711
teaching at Guy's Hospital, 1053
teaching tropical medicine, plan to improve, 1329
training medical officers for U. S. Army, [Hillman] 1141—ab
training naval psychiatrist, [Marsteller & others] ★968
war effect on, 702; [Rankin] ★1135
EDWARDS (McK.) Eczema Remedy, 641—BI
EFFERVESCENT Seltzer and Ritz Breath Purifier, 470—BI
EFFORT: See also Athletics; Endurance; Exercise; Work
fatal coronary occlusion in healthy (?) soldier, [Sterling] 1067—ab
muscular cramps on exertion and caisson disease, 248
Syndrome: See Asthenia, neurocirculatory
total collapse and coronary occlusion associated with physical exertion, [Master] 392—C; [Sterling] 955—ab
EFFUSION: See Pleura
EGGS, dehydrated, effect on vitamin content, [Kohman] ★837; 855
yolk as supplementary food for infants, [Jeans] ★918
yolk sac of chick embryos for cancer propagation, 1219—E
El ZAMBU Cream, 307—BI
ELASTIC hosiery, Junoform Two-Way Stretch, 204
ELBOW, fractures, nonsplinting treatment, [Neuwirth] 472—C
ELDERLY: See Old Age
ELECTRIC: See also Electro—; Photoelectric
Allergy Electric Mask, 146—BI
galvanic stimulation of muscle after peripheral nerve section: John Reid's theory, 375—E
General Electric builds high voltage machine, 135
High Frequency Apparatus: See Diathermy
Lighting: See Lighting

ELECTRIC—Continued
shock from lightning, mental and nervous effects, 577
Shock (Therapeutic): See also Mental Disorders
shock, therapeutic, alternating electric current (not direct current) for, 996
Sur-Way Electric Hair Brush Co., 1243—BI
ELECTROCARDIOGRAM: See Heart
ELECTROCOAGULATION: See Diathermy
ELECTROENCEPHALOGRAM: See Brain
ELECTROMETRIC timing of human ovulation, [Langman] 564—ab
ELECTRON Microscopy: See Microscopy
ELECTROPYREXIA: See Arthritis, rheumatoid; Fever, therapeutic
ELECTROSURGERY: See Rectum cancer
ELECTROTHERMY: See Diathermy
ELIOT Bill: See Laws and Legislation
ELMO Special Formula Cream, 307—BI
EMACIATION, desoxycorticosterone acetate and estrogens for, [Saurer] 485—ab
EMBALMERS: See Medicolegal Abstracts at end of letter M
EMBLEMS: See Insignia
EMBOLISM: See also Thrombosis; Medicolegal Abstracts at the end of letter M
after extracting teeth, possibility of death from, 578
air entry through transfusion sets, [Devas] 1071—ab
dicoumarin effect on, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Butsch & Stewart] ★1025; 1040—E; [Butsch] 1249—ab
postoperative heparin for, [Priestley] 481—ab
pulmonary, after injecting varices, prevention; empty vein technic, [Brunstein] 553—C
pulmonary, and beriberi heart disease, [Hussey] 400—ab
pulmonary, and thrombophlebitis of leg, value of venogram, [Fine] 1340—ab
pulmonary fat, after infusing mapharsen via bone marrow, [Wile] 794—ab
pulmonary, reflex atelectasis, [de Takats & others] ★686; [Schulman] 1157—C
treatment, apply phlebography, [Welch] 569—ab
EMBRYO: See also under **Eggs**; **Fetus**
mixed tumors of parotid gland, [Hemplemann] 234—ab
origin of dystopic tissues, [Gruenwald] 1253—ab
EMERGENCY base hospitals, (organization of) 57; 542; (establish in coastal states) 704; (Durham, N. C.) 970
blood plasma in simplified method for giving, [Pitman] ★195
care of fractures and splinting, 1349
hospital, new, in Natal City, 976
Medical Service: See also First-Aid
medical service, equipment for, 209
medical service, field casualty and ambulance units; revised instructions, 1222
medical service in Cocoanut Grove disaster, Boston, 1223; [Faxon & Churchill] ★1385
medical service in war department plants: OCD memorandum, 131
medical service, lectures on, Chicago, 851
medical units, supplies for, 772
mortuary services; OCD Bulletin 5, 542
Treatment: See First Aid
EMESIS: See Vomiting
EMETINE, for conditioned reflex treatment of alcoholism, [Lemere & others] ★269
EMIGRÉ Physicians: See Physicians, foreign
EMORY University Hospital Unit activated, 542
EMOTIONS: See also Fear; Psychosomatic Medicine; Rage
effect on duodenal ulcer, [Morrison & Feldman] ★738
effect on gastric function and ulcer, [Wolf & Wolff] ★670
EMPLOYEES; EMPLOYMENT: See Industrial Health
EMPYEMA, streptococcic, tyrothricin for, [Rammelkamp] 1251—ab
ENAMEL, mottled: See Teeth
ENCEPHALITIS: See also Encephalitis, Epidemic; Encephalomyelitis; Meningoencephalitis
hemorrhagic, after neoarsphenamine therapy, [Courville] 1431—ab
after yellow fever vaccination, [Fox] 1426—ab
ENCEPHALITIS, EPIDEMIC, acute mild, at Fort Sam Houston, [Woodland & Smith] ★358
equine, transmission to man, 466
equine western, clinical findings, [Adamson] 74—ab
equine western, epidemiology, Manitoba, [Donovan] 73—ab
etiology; serum treatment in northwest 1941 epidemic, [Rosenow] 1062—ab
St. Louis; geographic pathology, [Casey] 1343—ab
symptom-free interval and veterans' compensation, [Schnizer] 1438—ab
virus of western equine type in spinal fluid, [Chown & Norris] ★116
ENCEPHALOGRAPHY: See Brain
ENCEPHALOMENINGITIS: See Meningoencephalitis
ENCEPHALOMYELITIS, toxoplasmic, [Dyke] 151—ab
ENDAMEBA Infection: See Amebiasis
ENDOCARDITIS, acute bacterial, of tricuspid valve, [Goldburgh] 1061—ab
bacterial, in congenital heart disease, [Gelfman] 1061—ab
bacterial, mixed infections in, [Orgain] 231—ab
pneumococcus (type XXVIII), sulfadiazine, sulfathiazole and rabbit antiserum cures, [Blumberg & others] ★607
subacute bacterial, dicoumarin contraindicated, [Allen & others] ★1013
subacute bacterial; intravenous sodum sulfadiazine cures, [Dick] ★24
ENDOCRINE GLANDS: See also Endocrinology; Hormones (cross reference); under names of specific glands
effect on stomach secretion, [Thomas] ★737
humoral control of secretion, 456—E
in anaphylaxis and allergy, [Farmer] 648—ab
origin of cardiac neurosis, [Díaz Mindurry] 1257—ab
ENDOCRINOLOGY, Institute of, Montevideo, 637
Pan American Congress of, 549; 976
ENDOMETRIOSIS, treatment, radium or x-rays, [Movers] 321—ab
ENDOMETRIUM, Aberrant: See Endometriosis
persistent bleeding after implanting estrogen, 575
ENDOSCOPE, Thorpe ophthalmic, to remove foreign bodies in eye, [Spaeth] ★663; ★664
ENDURANCE: See also Effort; Work
vitamin B_1: "pep talks," [Karpovich] 78—ab
ENEMAS, hexylresorcinol, for pinworms, 166
of sea water do not relieve thirst, 165; [Bradish & others] ★683
retention, oils for, 1350
ENERGY Metabolism: See Metabolism, basal
Value of Food: See Calories
ENGLAND: See also British; Royal
at War: See World War II
Britain's food problem in the future (postwar), 218
diets for adult men in, analysis, [Wilder & Keys] ★534; (Council report) 764
ENSOL, Connell's (H. C.) cancer treatment, 985—MI
ENTERITIS: See Gastroenteritis; Intestines, inflammation
ENTEROBIUS vermicularis infection: See Oxyuriasis
ENTEROGASTRONE, inhibitor of gastric secretion, [Thomas] ★737
ENURESIS: See Urine incontinence
ENZYLAC Milk, 453
ENZYME: See also under names of specific enzymes as Peroxidase
activity and manganese, [Shils & McCollum] ★611
proteolytic, treatment to produce soft curd milk, 453
utilization of carbon dioxide by animal tissues, 454—E
vitamin P and, 1401—E
EOSINOPHILS: See Granuloma, eosinophilic
EPHEDRINE hydrochloride raises blood pressure, [Elmes] 722—ab
Isomer of: See Pholedrine
plus phenobarbital orally for serum sickness, [Engelsher] 1157—C
EPIDEMICS: See also Dysentery; Influenza; Poliomyelitis
Prevention: See Immunization; Quarantine (cross reference); Vaccination
shifts in wartime population and, 767—E
EPIDEMIOLOGY: See Encephalitis
EPIDERMOLYSIS bullosa, hereditary, in soldier, [Mansur] ★1122
EPIDERMOPHYTOSIS interdigitalis: See Dermatophytosis
EPILATION: See Hair
EPILEPSY, Dupuytren's contracture and, [Lund] 244—ab
gains against: electroencephalography, heredity (marriage), [Lennox] ★449
organic, deterioration in, [Arieff] 156—ab
treatment, mebaral (prominal) [Cohen] 1068—ab
treatment, phenytoin sodium, [Lennox] ★452
EPINEPHRINE, effect on electrocardiogram, [Hartwell] 237—ab
procaine hydrochloride with as local anesthesia in dentistry, 248
producing pheochromocytoma of adrenal, [Kirshbaum] 234—ab
racemic, for oral inhalation, (Council report) 287
serum sickness and anaphylaxis, 536—E; (ephedrine-phenobarbital orally) [Engelsher] 1157—C
to counteract reaction from injecting hemorrhoids with sylnazol, 167
Treatment: See Asthma
EPIPHYSES of long bones, regenerative capacity, [Becker] 723—ab
EPITHELIOMA, Chorioepithelioma: See Chorionic Carcinoma
of skin of ear, x-rays and radium for, [Driver] 478—ab
EPITUBERCULOSIS: See Tuberculosis, Pulmonary
EQUILIBRIUM, factor in aerial equilibration "tailspins," [Carson] ★7; 1309—E
EQUIPMENT: See also Apparatus; Instruments; Medical Supplies
for emergency medical services, 209
ERB-Goldflam's Disease: See Myasthenia gravis
ERECTIONS: See Penis
ERGOSTEROL, irradiated poisoning, [Bacharach] 787—C
ERGOTAMINE tartrate effect on electrocardiogram, [Hartwell] 237—ab
ERIODICTIN, vitamin P, 1401—E
ERNESTO, PEDRO, death, 1240
ERUCTATION, what causes flatulence? [Alvarez] ★21
ERUPTIONS: See also under names of specific diseases as Measles; Scarlet Fever
Congenital Bullous: See Epidermolysis bullosa
infectious, undescribed, [Blake] 405—ab
photosensitivity of sulfonamides, [Park] 1435
toxic, from phenobarbital, [Moss] 1062—ab
toxic, from sulfathiazole preparations, 1169
ERYTHEMA nodosum, [Poppel] 1067—ab
nodosum in venereal lymphogranuloma, [Hellerström] 798—ab
ERYTHRALGIA: See Erythromelalgia
ERYTHREMIA: See Polycythemia
ERYTHROBLASTOSIS, fetal, and skeletal changes, [Follis] 316—ab
ERYTHROBLASTS: See Anemia, erythroblastic familial
ERYTHROCYTES Count: See Anemia, Pernicious; Polycythemia
of cattle, 30 different hereditary isoagglutinogens in, 536—E
Sedimentation: See Blood sedimentation
transfused, demonstrated in recipient's blood, [Krüpe] 160—ab
transfused, fate of [Willenegger] 1437—ab
waste, advisable to return to donor of plasma, 727
ERYTHROMELALGIA of Head: See Cephalalgia
massive edema of feet and ankles of undetermined cause, 577
ESCHERICHIA coli, succinylsulfathiazole effect on, [Poth] ★265
ESOPHAGUS, hemorrhage (massive) after liver cirrhosis, treatment, [Grace] 1163—ab
occluded; man fed himself through large gastric fistula stoma, [Wolf & Wolff] ★670
periesophageal abscess, [Orton] ★877
ESTRADIOL dipropionate in prostate cancer, [Herbst] ★1116
ethinyl, oral, for menopause symptoms, [Watson] 649—ab
experimental fibroids and antifibromatogenic action, [Lipschütz] ★171
ESTROGENS: See also Estradiol
Diethylstilbestrol: See Diethylstilbestrol
fibroids induced by, [Lipschütz] ★171
implanting, persistent endometrial bleeding after, 575
injections, effect on electrical record of ovulation, [Langman] 564—ab
pregnancy toxemia relation to, [Taylor] ★595
prostatic epithelium relation to, [Alyea & Henderson] ★1100
standardization, (Council report) 921
treatment of arthritis, 411
treatment of emaciation, [Saurer] 485—ab
treatment of gonorrhea vulvovaginitis, [Brown] 647—ab
treatment of hypertension, angina pectoris, vascular disease, [Walker] 1251—ab
treatment of prostate cancer, [Kearns] 240—ab; [Kahle] 317—ab; [Alyea & Henderson] ★1099; [Gutman] ★1115; [Herbst] ★1116
treatment of senile pruritus, [Feldman] 153—ab
*tri***ETHANOLAMINE** solution treatment of burns, [Rothman & others] ★803
ETHER: See Anesthesia
ETHICS: See Medicolegal Abstracts at end of letter M
ETHINYL estradiol, oral, for menopause symptoms, [Watson] 649—ab
ETHMOID BONE, Cushing olfactory meningioma, x-ray diagnosis, [Erikson] 116—ab
fracture, treatment, [Shea] ★747
ETHYL aminobenzoate to relieve itching in trombidiosis (chigger bites), [Sutton] ★26
chloride freezing to relieve pain and loss of movement, [Henry] 1256—ab
chloride spray in soft tissue injury, [McIntosh] 1256—ab
ETHYLENE disulphonate as asthma cure, 842—E
glycol (Prestone antifreeze) added to wine, death from drinking, 575
treatment of fruits, effect on nutritive value, [Kohman] ★837

*di*ETHYLSTILBESTROL: See Diethylstilbestrol
ETIOLOGY, improper use of term, [Fox] 787—C
EUGENICS: See Medicolegal Abstracts at end of letter M
EUNUCHOIDISM, obesity in, 1262
treatment, methyl testosterone sublingually, [Spence] 158—ab
treatment, testosterone, [Lisser] 236—ab
EUROPEAN WAR, 1939—: See World War II
EUSTACHIAN TUBES in fliers, [Carson] ★5
orifice, radium irradiation for deafness, [Emerson] 154—ab
EVIDENCE: See Medicolegal Abstracts at end of letter M
EXAMINATION: See American Board; Physical Examination; State Board Reports; etc.
EXANTHEM: See Eruptions
EXERCISE: See also Activity; Athletics; Effort; Movements
Earnist's Hundred Dollar System of Scientific Physical Efficiency, 66—BI
effect on electrocardiogram, [Hartwell] 237—ab
in postoperative thrombophlebitis, [Krebs] 233—ab
Physique Control Course, Health-O-Flex System, 225—BI
restrictions after childbirth, 631; 801
tolerance test (Master 2-step) after coronary occlusion, [Master & others] ★1272
EXERTION: See Effort
EXHAUSTION: See Fatigue
EXHIBIT: See also Museum; New York World's Fair
medical, on loan basis from A. M. A., 629—OS
EXOPHTHALMOS: See also Goiter, Toxic
in various types of goiter, [Soley] 719—ab
EXOSTOSIS: See Ear
EXPLOSION: See also Bombs
Hazard in Anesthesia: See Anesthesia
mental effects of shock after, [Wespi] 159—ab
EX-SERVICE Men: See Veterans
EXTREMITIES: See also Ankle; Arms; Foot; Legs
Amputation of: See Amputation
crushing of limbs by fallen debris, renal failure after, England, 1052
Flowing Hyperostosis of: See Melorheostosis
Paralysis: See Hemiplegia
EYELASHES, dye: Camille's Mascara, 307—BI
dye, Dark Eyes, 307—BI
dye: Louise Norris Lash and Brow Coloring, 471—BI
EYES: See also Blindness; Cornea; Glasses; Ophthalmology; Pupils; Vision
Accommodation: See also Night Blindness
accommodation, dark adaptation and vitamin A, [Haig] 237—ab; [Butt] ★1033
accommodation during pregnancy, 872
burns in wartime, treatment, 635
care of, biblical quotation, [Brav] 68—C
changes in young diabetics, [O'Brien & Allen] ★190
combined fluorescent and Mazda lighting, 412
Diseases of: See Conjunctivitis; Glaucoma; Retinitis
floating opacities in high myopia, 578
foreign bodies (metallic), removal, [Spaeth] ★659
Goggles: See Glasses
hemorrhage in diabetes, 491
hemorrhage in migraine, [Dunning] 792—ab
injury, tetanus after, [Wetzel] 477—ab
paralysis (internal): dilated rigid pupils, 1170
pigmentation in ochronosis, [Smith] ★1282
"Pink Eye" in shipyard workers: See Conjunctivitis
Proptosis: See Exophthalmos
refraction, use of cycloplegics in, 872
Surgery: See also Sclerotomy
surgery, especially enucleation, intravenous anesthesia for, [Bishop & Rudder] ★807
surgery in Russian Army, [Filatov] ★54

F

FABRICS: See Cotton
FACE: See also Beard; Eyes; Jaws; Mouth; Nose
Cosmetics: See Cosmetics
dermatitis in infants, 490
Masks: See Masks
Paralysis: See Paralysis, facial
surgery, reconstructive, refinements in; Z plastics and skin flaps, [Smith] ★352
FACTORY: See Industrial Accidents; Industrial Health
FAHRNEY Products, Forni's Alpenkrauter, Magolo and Heil-Oel Liniment, 470—BI
FAINTING: See Syncope
FAJARDO, FRANCISCO, Brazil academy honors, 1240
FALLING: See also Accidents
physiology of free fall through air from parachute, 1311—E
FAMILIES: See also Children; Heredity; Infants; Marriage; Maternity; Paternity (cross reference)
size, honor mothers of largest families under Hitler's rule, one has 22 children, 137
FAMINE in Europe, 548
FARM: See also Rural
accidents, campaign against, New York, 299
milk farm for reducing, 168
Security Administration medical service plans, [Simons] ★1315; (malpractice suits) [Taylor] 1317—ab
FARR'S For Gray Hair, 471—BI
FASCIA: See also Contracture Dupuytren's
lata strips for treating facial paralysis, 1170
FASTING, Lust's philosophy of, 471—BI
FAT: See also Obesity; Oil
dietary, influence on urobilin excretion in stools of normal infants, [Josephs] 793—ab
effect on gastric secretion, [Thomas] ★736
Embolism: See Embolism, pulmonary
Soluble Vitamins: See Vitamins
Tissue: See Lipodystrophy
FATHER John's Medicine, 225—BI
FATIGUE: See also Asthenia
fracture of tibia, 1239
increase in industrial accidents; Medical Research Council report, 841—E; 856
problem of, [McIntire] ★1136
working conditions and, 698—E
FEAR, irrational, 666—ab
FECES, examination, diagnostic value in pancreatic disease, [Pratt] ★175
Loose Stools: See Diarrhea; Dysentery
minerals in, clinical value of determining, [Macy] ★34
urobilin in, dietary fat affects in normal infants, [Josephs] 793—ab
yellow, and paralytic ileus, [Tobler] 320—ab
FECUNDATION: See Impregnation, artificial
FECUNDITY: See Fertility
FEDERAL: See also United States
Aid; Funds; Grants: See United States government
Income Tax: See Tax
Legislation: See Laws and Legislation
Trade Commission: See under American Medical Association Bureau of Investigation; Medicolegal Abstracts at end of letter M
Workers: See United States employees
FEEDING: See Infants; Tube feeding
the Army and Navy: See Nutrition
FEES, amount paid by medical service plans, (Mich.) [Haughey] 1321—ab; (Calif.) [Kress] 1322—ab
physicians, in Greece paid in kind, 711
physicians paid for examining applicants under dependent children's fund, 135
FEET: See Foot
FELLOWSHIPS: See also Scholarships
A. M. A. Council on Foods and Nutrition, for study of breakfast cereals, 628—OS
Dazian, awarded by Mount Sinai Hospital, 300
Finney-Howell Research Foundation, 976
hospitals approved for, by A. M. A., 972—OS
in ophthalmology and otolaryngology, [Harkness] ★328
Inter-American exchange, [Fishbein] ★1186; [Dornelles] ★1190
Jacobi (Mary Putnam) available, 1238
Kemper, awarded, 1048
Lalor Foundation, 854
Ledyard, available, 60
P. Duff & Sons, Inc. industrial, 776
research, available at U. of Illinois, 545
Rockefeller Foundation-National Research Council, 1329
Royal Society of Medicine, (honorary) 549
FELTY'S Syndrome: See Arthritis, rheumatoid
FEMOVITA, 225—BI
FENESTRATION Operation: See Otosclerosis
FENGER Lecture: See Lectures
FERMENTATION, effect on vitamin content, [Kohman] ★838
FERMENTS: See Enzymes
FERNOL Concentrate, 470—BI
FERTILITY: See also Spermatozoa; Sterility; Sterilization, Sexual
human, "safe period," [Smith] 570—ab
FETOR Oris: See Halitosis
FETUS: See also Embryo; Infants, Newborn; Placenta; Pregnancy
Death: See Stillbirth
effect of single large alcohol (beer) intake on, 88
effect of taking calcium lactate on, 87
mineral composition of body, [Macy] ★35
skeletal changes and fetal erythroblastosis, [Follis] 316—ab
weight in proteinuria in pregnancy toxemia, [Dieckmann & Kramer] ★593; (discussion) 598
FEVER: See also Rheumatic Fever; Scarlet Fever; Typhoid; Typhus; Yellow Fever
Desert: See Coccidioidomycosis
Glandular: See Mononucleosis, infectious
in intestinal involvement in pulmonary tuberculosis, [Tchertkoff] 79—ab
FEVER—Continued
Malta: See Brucellosis
Rabbit: See Tularemia
Relapsing: See Relapsing Fever
Rocky Mountain: See Rocky Mountain Spotted Fever
Therapeutic: See also Arthritis, rheumatoid; Gonorrhea; Neurosyphilis
therapeutic, de Kruif's article in *Reader's Digest*, 48—E; [Cole] 226—C
therapeutic, induced by triple typhoid vaccine, (reply) [Solomon] 492
therapeutic, reduced blood pressure in hypertension, [Chasis] 237—ab
Undulant: See Brucellosis
FIBROBLASTS, growth in serum containing sulfathiazole, [Reed] 405—ab
FIBROIDS: See Myoma
FIBROMA, ovarian: Meigs's syndrome, [Ritvo] 718—ab
FIBROSIS: See Pancreas
FILMS: See Moving Pictures
FILTER, Nasal: See Nose
FINGERNAILS: See Nails
FINGERPRINTS, sentence Dr. L. W. A. Brandenberg accused of altering, 135
FINGERS: See also Fingerprints; Nails
cot method to obtain rectal cultures in dysentery, [Yannet & others] ★184
little, congenital bowing of, 490
FINNEY-Howell Foundation: See Foundations
FINNEY, J. M. T., war surgeon and treatment of wounds, 1312—E
FIRE: See also Bombs; Burns; Explosion
Boston disaster, 1223; [Faxon & Churchill] ★1385
prevention week, Oct. 4-10, 136
FIRST AID: See also Emergency Medical Service
British experience with air raids, [Baehr] ★1045
care of fractures and splinting, 1349
courses, Borg Prone Pressure Timing Device, 373
neighborhood dressing stations, Del., 210
training and civilian defense staff members, 846
treatment of "crush injury" syndrome, [Patey] 1070—ab
work by Red Cross, A. M. A. commends; pressure points to control bleeding, 411
FISH, nutritive values, [Wilder & Keys] ★531
FISHBEIN, MORRIS, statement at Pepper hearings, 922—E; 948
FISTULA, anal, in tuberculous, [Basunti] 992—ab
gastric, stoma, man who fed himself for 45 years through, with gastric mucosa visible, [Wolf & Wolff] ★670
FITZ, REGINALD H., tribute to, on disease of pancreas, [Pratt] ★175
FLATFOOT: See Foot
FLATULENCE, carminatives and gastric emptying, [Van Liere] 1253—ab
functional bowel distress after poliomyelitis, 167
postoperative distention and intestinal motility, [Puestow] ★903
treatment, carbohydrate free-diet, [Sandler] 309—C
what causes? [Alvarez] ★21; (precedes ascites in liver cirrhosis) [Mannheimer] 553—C
FLEAS, transmit virus of myxomatosis, 63
FLIERS: See Aviation
FLIES, crusade against, Buenos Aires, 387
Infestation with Larva: See Myiasis
life history of Cochliomyia Americana, [Turnbull & Franklin] ★118
FLOATING of drowned body, 871
FLOORING, rubber, how to conserve, directions for cleaning or washing, 847
FLOUR: See also Bread; Wheat
gluten of, biologic value of wheat proteins, 126—E
whole wheat and white, composition, vitamin and mineral content, [Maynard] ★692; ★693
FLOTING Oil-of-Castor, 1334—BI
FLOWING Hyperostosis of an Extremity: See Melorheostosis
"FLU": See Influenza
FLU-GO, 552—BI
FLUIDS: See also Beverages; Milk; Water
administration to surgical patient, [Wangensteen] 1433—ab
Body: See Blood; Cerebrospinal Fluid; Humors; Lymph; etc.
FLUORESCENT Lighting: See Lighting
FLUORINE in water; relation to mottled enamel and caries in children, [Shils & McCollum] ★615; (Escanaba study) 1147
mottled enamel, spondylosis deformans in relation to, [Kemp] 796—ab
FLUOROSCOPE: See Roentgen Rays
FLY: See Flies
FLYING: See Aviation
FOLIN-DENIS reagent for uric acid determinations of blood, 1169
FOLLICLE stimulating hormone, increased excretion, new syndrome, 1400—E
FOOD: See also Beverages; Bread; Cheese Diet; Fruit; Meat; Nutrition; Vegetables; Medicolegal Abstracts at end of letter M
Allergy: See Milk

FOOD—Continued
A. M. A. Council on Foods and Nutrition: See American Medical Association
Appetite for: See Appetite
between-meal lunches for workers; sugar and carbonated beverage in (Council report) 765
Canned: See Canned Food
classes of, Navy ration, [Brown] ★96
classes of; soldier's ration, [Howe] ★93
containers: self-sterilizing plastics, 127—E
Cooking: See Cooking
Craving for: See Appetite
Deficiency: See Nutrition deficiency
Dehydrated: See Dehydration
Digestion of: See Digestion
Drug and Cosmetic Act: See Medicolegal Abstracts at end of letter M
Energy Values: See Calories
frozen, [Kohman] ★834; ★835
industry, chemistry in relation to; A. C. S. meeting, 207—E
Infant's: See Infants, feeding
Ingestion of: See Indigestion
Miel de Maguey, Germ of Wheat, Redi-Meal, Kelement and Melvite Food, 66—BI
of plant origin, [Maynard] ★692
officials organize for emergencies, 709
poisoning, staphylococcus differentiating from salmonella, [Slocum] 403—ab
preservation and chemistry, A. C. S. meeting, 207—E
preservatives (chemical), effects on vitamins in, [Peragallo] 868—ab
processing, [Kohman] ★831
rationing, Britain's, (postwar problem) 218; (improves physique) 549; (for diabetic) 1240
rationing under Hitler's rule, 217
research in *Biological Abstracts*, 854
saving, pamphlets on, 377
School Lunches: See Schools
supply and animal health, England, 1152
unusual foods of high nutritive value, [Wilder & Keys] ★529
Vitamin Content: See under names of specific vitamins
FOOT: See also Ankle; Orthopedics; Shoes
Athlete's: See Dermatophytosis
baths, sodium thiosulfate ("Hypo") for athlete's foot, [Gould] 1057—C
blisters on, composition of shoes: sensitivity to rubber, wool, cotton and leather, 86
blisters on, hereditary epidermolysis bullosa in soldier, [Mansur] ★1122
Corns on: See Corns
edema (massive) of undetermined cause, 577
flatfoot, congenital, [Kuhns] ★329
Hongkong, radium for, [Vassiliadis] 719—ab
immersion, 1216—E
plantar calluses in children, [Halberg] 162—ab
Ringworm: See Dermatophytosis
FOOTWEAR: See Hosiery; Shoes
FOREARM fractures in children, [Blount & others] ★111
FOREIGN Countries: See also under names of specific countries as China; Germany; Greece; etc.
countries, disease prevalence; Division of Medical Intelligence data on, 1044
Graduates: See Physicians, foreign
War: See World War
FOREIGN BODIES: See also Eyes; Muscles; Thigh
bronchiectasis in children from, [Wishart] ★1185
FORGERS: See Impostors
FORMULARY, national, in Peru, 857
FORNI'S Alpenkrauter, Magolo and Heil-Oel Liniment, 470—BI
FORT: See Medicine and the War
FOUNDATIONS, American Flying Services, 209
Anderson (M.D.), cancer project, 1050
Arce, of Buenos Aires awards first scholarship, 854
Finney-Howell Research, fellowships, 976
Hogg, of U. of Texas, lectures on mental hygiene, 1050
Industrial Hygiene meeting, 778; 1329
Lalor, fellowships awarded, 854
Macy (Josiah Jr.), grants for tropical disease studies, 1048
Markle (John and Mary R.), (grant for study of renal hypertension) 545; (grant for study on renal hormones) 853; (to finance plan to improve teaching of tropical medicine) 1329
Mayo, navy dental officers ordered to, 846
Menninger Foundation prize for window display, 709
National Foundation of Infantile Paralysis, (Dr. Lavan joins) 546; (annual meeting) 975; (wool available for Kenny treatment) 975; (medical advisory committee chairmen) 1409
Nutrition Foundation, Inc., 374—E; 1051
Parmly, for hearing research, 774; 1406
Rockefeller: See also Rockefeller Institute
Rockefeller, (grants for fellowships) 1329
Swiss, for scholarships, 1153
FRACTURES: See also under specific bones as Cranium; Elbow; Sinuses, Nasal
compound, local sulfanilamide in, [Jensen] 318—ab; [Frankel & Funsten] ★1384
compound, orthopedic surgery between the 2 wars, [Dickson] ★414
fatigue, of tibia, 1239
March: See Metatarsus
Monteggia's: See Ulna, fracture of forearm in children, [Blount & others] ★111
treatment, ball and socket screw, [Hoffmann] 1166—ab
treatment, emergency care; splinting, 1349
treatment, Thomas splint in last war, 805—ab
"FRAGRANT MEADOW" cosmetics, 307—BI
FRANK Billings Lecture: See Lectures, Billings
FRATERNITIES: See Sigma Xi
FRAUDS; Fraudulent Salesmen: See Impostors
FREDERICS Uni-Temp Machine, 307—BI
FREEMAN'S Pyletts, 640—BI
FREEZING, frozen foods, [Kohman] ★834; ★835
Therapeutic: See Ethyl chloride
FRESHMAN Class: See Students, Medical
FRIEDMAN Lecture: See Lectures
FRIGHT: See Fear
FRONTAL SINUS fractures, management, [Shea] ★747
FROZEN: See Freezing
FRUIT: See also Apples; Apricots; Peaches; etc.
dehydrated, effect on vitamin content, [Kohman] ★837; 855
effect of storage and cooking in vitamin C, etc., [Kohman] ★832; ★834
nutritive value, especially tropical fruits, [Wilder & Keys] ★532; [Maynard] ★696
spray, lead arsenate poisoning in farmer, [Kilgore & Rhoads] ★1125
spray: thiourea or naphthalene acetic acid, 207—E
FUEL rationing, health aspects, (Dr. Bristol's subcommittee report) ★370; 376—E; 456—E; [Dean] 472—C; (N. Y.) 708
FULTO Hair Preparations, 307—BI
FUMIGATION and humidity, 625—E
FUNCTION, interdependence in anesthesia, [Bourne] ★997
FUNGI: See Yeast
Infection with: See Dermatophytosis; Moniliasis; Torula
FURUNCULOSIS treatment, mixed vaccine for coal miners, [Möhlenbruch] 487—ab
treatment, sulfathiazole emulsion, [Ackman] 235—ab

G

G.S., of L. M. Gross Co., 1243—BI
GABASTOU-Majon Method: See Placenta, retained
GALLBLADDER: See also Bile Ducts
bacteriology in choledochotomy, [Elkeles] 1162—ab
Carter's Little Liver Pills activate bile flow? 1219—E
disease, pylorospasm secondary to: pain in chest, [Harrison] ★522
disease, symptoms in pancreas disease, [Cunha] 1429—ab
dysfunction, workers' absenteeism from, relation to holidays, [McGee & Creger] ★1367
Kimball Laboratories, 1243—BI
typhoid carriers (chronic), [Coller] 1070—ab
GALVANISM, stimulate muscle after peripheral nerve section: Reid's theory, 375—E
GAMES: See Athletics
GANGRENE, Gas Bacilli: See Clostridium welchi
gas, roentgen therapy, [Singer] 1072—ab
gas, sulfonamides and zinc peroxide for, [Caldwell] 865—ab
GARFIELD, SIDNEY, testimony at Pepper hearings, 840—E; 922—E; 946
GARFIELD Headache Powders, 470—BI
GARLIC, value in hypertensive disease, 411
GARVAN Medal: See Prizes
GAS: See also under names of specific gases as Carbon Monoxide; Oxygen
Bacillus: See Clostridum welchi
Distention from: See Flatulence
effect of gases on teeth and gums, [Schour & Sarnat] ★1203
Gangrene: See Gangrene
inert, asphyxial resuscitation with, [Birnbaum] 318—ab
Mask: See Mask
Mustard: See *di*Chloroethyl Sulfide
Poisoning: See Carbon Monoxide
Warfare: See also Chemical Warfare
warfare attacks, on civilians, precautions against; antigas ointment, England, 218
warfare, courses on, (at Little Rock) 132; (at Ohio State) 853
warfare, emergency mortuary services; identification tags for civilians, 542
warfare, officers' institute in Detroit, 130
GASOLINE, rationing, "C," eligibility for, 772
rationing, physicians part in, 700—E; [Richards] 701
GASTRECTOMY: See Peptic Ulcer, surgical treatment
GASTRIC Acidity; Resections; etc.: See Stomach
Juice: See Stomach secretion
Ulcer: See Peptic Ulcer
GASTRITIS: See Stomach inflammation
GASTROENTERITIS: See also Food poisoning
outbreak from poluted water supply, N. Y., 135
outbreak, milk borne, Oklahoma City, [Terzich] 403—ab
GASTROENTEROLOGY, American Gastroenterological Association to publish *Gastroenterology*, 709
U. S. Army medical department concerned with, [Kantor] ★257
GASTROINTESTINAL TRACT: See also Digestive System; Duodenum; Indigestion; Intestines; Stomach
disorders, forum on, Milwaukee, 1150
disorders, workers' absenteeism from, relation to holidays, [McGee & Creger] ★1367
irritability (spasticity) in duodenal ulcer, [Morrison & Feldman] ★738
metabolism of radioactive iron, 1399—E
neural pathways between central nervous system and, in poliomyelitis, [Sabin] ★506
roentgen study fails to show intestinal obstruction in newborn, [Stadler] ★1384
symptoms in brain tumors, [Nielsen] 571—ab
vitamin B deficiencies, [Martin] 476—ab
GAUZE, boric-butyn-petrolatum: See Burns, treatment
GEE Herter's Disease: See Celiac Disease
GELATIN, amphetamine sulfate in, for parenteral use, [Myerson] 477—ab
proteins in nutrition, [Lewis] ★203
GEM Hearing Aid, Model V-4, C-186, 1397
GENERAL ELECTRIC Heat Lamps, 204
Research Laboratory builds high voltage machine, 136
GENERAL PARESIS: See Dementia Paralytica
GENEVA Red Cross movement; Geneva Prisoners of War Convention and Japanese, 293—E
University of: See University
GENITALS: See also Genitourinary System; Gonads; Penis
tuberculosis in women, roentgen therapy, [Schmiemann] 321—ab
GENITOURINARY SYSTEM, tuberculosis, ultraviolet ray therapy (Council report) ★622; ★623
GENTIAN VIOLET: See Methylrosaniline
GENU Recurvatum: See Knee
GEOGRAPHY, pathology of St. Louis encephalitis, [Casey] 1343—ab
GEORGIA, University of: See University
GERBER'S Strained Peaches, 697
GERIATRICS: See Old Age
GERMANY, lack of doctors: Nazi conception of "public health" 848; 855
public health under Hitler's rule, 137; 217; 547; 848; 971; 1223; 1313; 1403
War with: See World War
GERMICIDES: See also Disinfection
mold with remarkable antibacterial powers: Penicillium notatum, 779
self-sterilizing plastics: used for food containers, drinking cups, etc. 127—E
Thypernol, 471—BI
GERONTOLOGY: See Old Age
GESTATION: See Pregnancy
GIARDIA lamblia, enteritis in nursery home; atabrine cures, [Ormiston] 991—ab
GIBB'S coagulometer (simplified) to determine prothrombin, [Ulin & Barrows] ★826
GIBSON, THOMAS, memorial at Queen's U., Canada, 854
GIDDINESS: See Vertigo
GIDEONSE, H. D., on medical school admissions vs. future supply of physicians, 50—E
GIFTS: See Foundation; University
GILCHRIST Lecture: See Lectures
GINGER, fluid extract of and gastric emptying, [Van Liere] 1253—ab
GIRDLE: See Abdominal Belt; Corset
GIRLS: See Adolescence
GLANDS: See under names of specific glands of Internal Secretion: See Endocrine Glands
Sex: See Gonads
GLANDULAR Fever: See Mononucleosis, infectious
"GLANULES" treatment of functional uterine hemorrhage, [Sutherland] 484—ab
GLARE goggle, [Stieren] ★26
GLASS, GEORGE, Nature's Scientific Method for Growing Hair, 1243—BI
GLASS: See also Drinking cups
containers vs. tin for canned food, [Kohman] ★837
plastic device for giving morphine, 1133
GLASSES, Examination for: See Cycloplegics
metal safety and glare goggle, [Stieren] ★26
GLAUCOMA, treatment, adrenal cortex extract and splenic extract, 1169
work on, prize for, 1238

α_2GLOBULIN fraction, renal pressor system, 923—E
GLO-CO Hair Groom for Men, 471—BI
GLOMERULONEPHRITIS: See Nephritis, glomerular
GLOMUS TUMOR, [Ottley] 406—ab
subungual (probable), 88
GLOSSITIS: See Tongue inflammation
GLOVES: See Rubber gloves
GLUCOSE: See Dextrose
GLUCOSIDE, Cardiac: See Lanatoside C
GLYCEMIA: See Blood sugar
GLYCERIN lubricating jelly, McKenzie's noninjurious substitute for, 847; 1134
GLYCOLS: See also Propylene Glycol
combined with wine, death from drinking, 575
GLYCOSURIA: See also Diabetes Mellitus
reject for military service? 996
GOAT'S Milk: See Milk
GOGGLE: See Glasses
GOITER: See also Goiter, Toxic; Hyperthyroidism
amyloid, [Walker] 867—ab
endemic, Brazil, 139
endemic, prophylaxis, Mexico, 466
exophthalmos in various types, [Soley] 719—ab
GOITER TOXIC, calcium and phosphorus excretion in, [Robertson] 242—ab
hemorrhagic purpura in, [Bickel] 992—ab
GOLD reaction (colloidal) of blood serum in liver diseases, [Lavin] 653—ab
salts in chronic articular rheumatism, 220
treatment, detoxicating action of ascorbic acid, 1331
treatment plus vitamin D, simultaneous use for rheumatoid arthritis, 871
GOLDBLATT'S research on hypertension, [Calder] 309—C; (confirmed) [Hoffman] ★1028
GONADOTROPINS, chorionic, relation to pregnancy toxemia, [Taylor] ★595
chorionic, treat one twin with cryptorchism and falsetto voice, [Greene] ★1195
pituitary (anterior) factor, 250
GONADS: See also Ovary; Testis
hypogonadism, methyl testosterone for, [Pratt] 650—ab
obesity and probable mixed glandular deficiency in young girl, 88
GONORRHEA: See also Venereal Disease
American Neisserian Medical Society, (elections) 1409
chronic, treatment in man, 168
control in World War II, [Aselmeyer] ★880; [Stokes] ★1094
employing persons with, [Anderson & others] ★830; (correction) 1051
epidemiology, and the Navy, 926—E
open prostitution and, Vancouver, 1180—ab
treatment, fever plus sulfapyridine, [Batchelor] 1436—ab
treatment, sulfadiazine, massive dose single, [Stokes] ★1098
treatment, sulfamethazine, [Macartney] 241—ab
treatment, sulfathiazole, [Haxthausen] 162—ab
treatment, sulfonamides, in women and children, [Adair] 1341—ab
vulvovaginitis, estrogens for, [Brown] 647—ab
GOODY'S Headache Powders, 225—BI
GOORMAGHTIGH Cells: See Cells
GORGAS Medal: See Prizes
GORTNER, ROSS A., death, 462
GOSZTONYI Ultraviolet Applicator, 372
GOURAUD'S Oriental Cream, 308—BI
GRAAFIAN Follicle: See Follicle Stimulating Hormone
GRADUATE Fellowships: See Followships
Work: See Education, Medical
GRADUATES: See Interns; Residencies
Foreign: See Physicians, foreign
GRAFTS: See Bones; Skin
GRAHAM-LITTLE, ERNEST, views on state medicine, England, 1410
GRAIN: See also Cereal Products; Corn; Flour; Wheat; etc.
"grain spawn," ultraviolet room sterilization, 626—E
nutritive value, [Wilder & Keys] ★533
GRAND MAL: See Epilepsy
GRANT, DAVID N. B., address by, 1317
GRANTS for Research: See American Medical Association; Fellowships; Foundations; Research; Scholarships
GRANULATING areas, use dicoumarin cautiously, [Butsch & Stewart] ★1025
GRANULOCYTOPENIA: See also Agranulocytosis, Acute
etiology: aminopyrine, [Varela Fuentes] 83—ab
etiology: sulfathiazole, in children, [Herlitz] 321—ab
neutropenia from acetanilid-aminopyrine headache powder (James') [Austin] ★911
GRANULOMA Coccidioidale: See Coccidioidomycosis
eosinophilic or solitary, of bone, [Green] 315—ab
GRAPEFRUIT juice, nutritive value, [Maynard] ★696
GRASS juice factor, [Elvehjem] ★1396
use for human food, [Wilder & Keys] ★533
GRAVES' Disease: See Goiter, Toxic
GRAVITY: See Specific Gravity
GREAT BRITAIN: See British; England; Royal; World War II
GREECE, physicians fees paid in kind, 711
public health under Hitler's rule, 547
GREENBRIER Hotel, converted into Army hospital, 1045
GRID, Wetzel's, for evaluating physical fitness, 657
GRIP: See Influenza
GROCERY Manufacturers of America award, 1409
GROSS (L. M.), Medicine Co., 1243—BI
GROSS (Lewis) Lecture: See Lectures
GROUP Health Association, U. S. Supreme Court to review A. M. A. indictment, 624—E
Hospitalization: See Hospitals, expense insurance
GROWTH: See also Body height; Bones; Fibroblasts
amino acids (essential and not essential) for, [Lewis] ★200
factor, cartilage, of vitamin B complex, [Elvehjem] ★1392
iron requirements for, [Heath] ★368; ★369
mineral elements required for, [Macy] ★34
of children, relation to diet, [Jeans] ★918
GUAVA, nutritive value, [Wilder & Keys] ★532
GUILLAIN-BARRÉ syndrome, synthetic vitamin E therapy, [Blakeslee] 650—ab
GUILLOTINE Operation: See Amputation
GUMMA, aortitis, [Gordon] 1163—ab
osseous and cutaneous, bismarsen in, [Beerman & others] ★337
GUMS, industrial lesions, [Schour & Sarnat] ★1197
GUNSHOT Wounds: See Wounds, gunshot
GUZMÁN, LEONARDO, Latin American radiologist on tour, 1406
GYNECOLOGISTS, American Association of, (meeting) 61; (election) 854
Central Association of, (suspend meeting) 61
GYNECOLOGY, American Board of, (educational objectives) [Dannreuther] ★169; (examinations) 777; (correction) 1051
American Gynecological Society ovarian tumor registry, [Novak & others] 1057—C
GYNECOMASTIA: See Breast hypertrophy in male

H

HS (mustard gas): See *di*Chloroethyl Sulfide
H. S. G. Cosmetics, 308—BI
H. V. 222, 66—BI
HADASSAH University-Rothschild Hospital, Jerusalem, 64
HAGGARD Lecture: See Lectures
HAIR: See also Beard; Scalp; Shaving
Certain-Gro "Liquid" Hot Oil Treatment, 307—BI
Dye: See also Eyelashes
dye, Amirol Color and Oil Shampoo Treatment, 307—BI
dye, Ar-Jay Liquid Color Rinse, 391—BI
dye, Black Strand Hair Coloring, 307—BI
dye, Coffelt's Never Failing Hair Coloring, 391—BI
dye, Humm, 308—BI
dye, Lady Lennox Hair Coloring, 308—BI
dye, Malintzin, 308—BI
dye, Noreen Super Color Rinse, 308—BI
dye, Queen Ann Hair Dye, 641—BI
dye, Rejuvena, 308—BI
dye, Superglo Henna Rinse and Lux Hair Dye (or Lux Hair Coloring), 391—BI
dye, Tuch-Up, 391—BI
excessive, electrocoagulation for, 326
excessive, Lanzette, pumice stone device for removing, 391—BI
excessive, on legs, treatment either by shaving, depilatory or bleaching, 727
Fulto Hair Preparations, 307—BI
Glo-Co Hair Groom for Men, 471—BI
gray, Farr's For Gray Hair, 471—BI
gray, Zenaida, 641—BI
Jordeau Waterless Shampoo, 391—BI
La-Nu Hair and Scalp Vitalizer, 471—BI
Loss of: See Alopecia
Madame Hector's Pomado, 391—BI
Mahdeen, 391—BI
Makasar Wonderful Pomade, 1334—BI
Mary Luckie Hair Tints, 471—BI
Naturene, 1334—BI
Paulette Hair Dressing, 471—BI
permanent wave, Floting Oil-of-Castor, 1334—BI
permanent waving, Frederics Uni-Temp Machine, 307—BI
permanent waving (heatless), Willat Method (ammonium hydrogen sulfide solution) 471—BI; 1156—BI
permanent waving, Patriot Croco Pads, 308—BI
permanent waving solution, dermatitis of scalp from, 657
pili torti hereditaria, [Appel] 78—ab
Removal: See Hair, excessive
Studio Girl Shampoo, 308—BI
Sur-Way Electric Hair Brush Co., 1243—BI
Thomas Home Treatment Kit, Trichotone and Trichovita, 785—BI
HALITOSIS, Effervescent Seltzer and Ritz Breath Purifier, 470—BI
Priscilla Parker Breath Correcting Lipstick, 641—BI
Stop, 67—BI
Sure, 641—BI
HAND: See also Fingers; Wrist
hereditary epidermolysis bullosa in 25 year old soldier, [Mansur] ★1122
HANDICAPPED: See also Crippled; Disability
children, division, (Dr. Fauenberger director, N. Y.) 135
children, school for, Panama, 137
youths, survey, Illinois, 298
HAND-Schuller-Christian Disease: See Schuller-Christian Syndrome
HAPS: Stop-Lite Product, 67—BI
HAPTENS, A and B substances, 206—E; [Levine & State] ★275; [Klendshoj] 314—ab; [Thalhimer] ★1263
HARBEN Lectures: See Lectures
HARINGTON, C. R., death, 711
HARRIS (Townsend) Medal: See Prizes
HARRISON Narcotic Act: See Medicolegal Abstracts at end of letter M
HARTFORD Retreat, Neuropsychiatric Institute of, affiliates with Columbia U., 851
HARVARD University, (seminar in legal medicine) 136; (emeritus professors called back) 974; (-Red Cross Hospital in England) 377; 710; (plasma fractionation laboratory) 1041; (activities) 1049; (School of Dental Medicine, administrative committee) 1147
HARVEST mite: See Trombidiosis
HARVEY Lecture: See Lectures
HASEBROOCK, E. E., PERMANENT RELIEF FROM SINUS TROUBLE AND ASTHMA, 471—BI
HAWLEY, Col. PAUL R., in England, 541
HAY FEVER, Allergy Electric Mask, 146—BI
Hayrin Nasal Filters, 66—BI
ragweed, 727
treatment, inhaling racemic epinephrine, vaponefrin, asthmanefrin, neosol, etc., (Council report) 287
treatment; "no milk-no carbohydrate diet," 250
HAYRIN Nasal Filters, 66—BI
HEAD: See also Brain; Cranium; Face; Hair; Neck; Scalp
Bald: See Alopecia
Erythromelalgia of: See Cephalalgia
injury (acute), system for management, [Glaser] 990—ab
injury in brain tumors, [Globus & Sapirstein] ★350; ★351
injury (trivial), middle meningeal hemorrhage in children after, [Lanigan] 722—ab
HEADACHE: See also Migraine
Garfield Headache Powders, 470—BI
Goody's Headache Powders, 225—BI
histamine, prostigmine bromide for, [Pelner] 1252—ab
in hypertension, [Weiss] ★1083
James' Headache Powder, acetanilid and aminopyrine poisoning from, [Austin] ★911
Migro Headache Powder, 552—BI
Nervease Headache Powders, 552—BI
periodic, histamine diphosphate for; histaminic cephalalgia, 249
possible hypophysial adenoma, 250
post-traumatic, [Lehmann] 1064—ab
reversible, clinical test for: pressure on malar bones, [Scott] 156—ab
HEALING, Lust's NATURAL METHOD OF HEALING, 471—BI
HEALO-SALV, 67—BI
HEALTH: See also Disease; Sanitation
Adolescent: See Adolescence
American Public Health Association, (Western branch elects officers) 216; (meeting) 464; (elections) 1238
aspects of fuel rationing, (Dr. Bristol's subcommittee report) ★370; 376—E; 456—E; [Dean] 472—C; (N.Y.) 708
Board of: See subheads: Department; State Board
Booklets, George Cary Earnist, 66—BI
Canadian Public Health Association, (meeting), 137
Center: See also Health unit
center, (turned over to Sister Kenny) 299; (new, Mo.) 462; 1148; (Ariz.) 774; (Texas) 777; (new, Ky.) 1407
conditions in a New York City district, East Harlem, 1311—E
conference, Illinois, in St. Louis, 631
county departments, (wartime, Illinois) 381; (moves, Tenn.) 1149
Department: See also under other subheads
department, Petropolis, Brazil, 140
department, state and local, venereal disease control program, [Anderson & others] ★828
district, (formed, Washington) 777; (10 years old, Md.) 973
education program, Ariz., 213
Examination: See Physical Examination
Health for Victory Conference, Mich., 1407
"Health in the News" broadcasts by Providence Medical Association, 700—E
Health-O-Flex System Courses, 225—BI
in the tropics, [Dreisbach] ★1192
in Wartime: See Medicine and the War; World War II
Industrial: See Industrial Health
Institute, Pa., 215
Insurance: See Insurance
Mental: See Mental Hygiene
Minister of, report, England, 635; 710; 1151

HEALTH—Continued
museum, Cleveland, 215; 1408
National Defense and: See Medicine and the War
National Institute of, cancer study, 777
of American troops in Britain good, 855
of Recruits: See Medicine and the War
plan expanded at U. of New Hampshire, 1148
problems in war housing, [Freedman] ★9
problems of the Americas, session on, [Fishbein] ★1186; [Sawyer] ★1189; [Dornelles] ★1190; [Dreisbach] ★1192
program, Latin American, 62
progress, speeding in the Americas, [Sawyer] ★1189
Public Health Laboratory: See Laboratories
Public Health Nurse: See Nurses
public, (in Bolivia) 220; (in Peru) 387; (in Chile) 549
public, New York Public Health Research Institute (Dr. Julianelle appointed) 1237; (annual report) 1237
public, Pan American Sanitary Conference adopts resolutions, 978
public, school of, (graduation, Mexico) 466; (proposed, U. of California) 707
public, under Hitler's rule, 137; 217; 547; 848; 971; 1223; 1313; 1403
regulations on fitting shoes to stockingless feet and on fitting foundation garments, (Mich.) 59; (D. C.) 213
record (continuous) for infants, Germany, 1313
resorts, American, A. M. A. Committee on; (Major Holbrook resigns) 628—OS; (changes in rules), 773—OS
Safety and Technical Supplies Branch, 459
School Health: See Schools
Service: See also Medical Service
service, German fuehrer's decree on, 848; 855
state board positions open, Del. 298
state departments, medical and dental care by, 1325—OS
Statistics: See Vital Statistics
status of NYA youth on out of school work programs, 634; 773—OS
Students: See Students
Supplement: See Newspapers
Supplies: See Medical Supplies
Unit: See also Health center; Health district
unit, city and county combine, Kansas, 462
U. S. Army, 294
U. S. Public Health Service, (organize emergency base hospitals) 57; (Dr. Wile commissioned) 846; (statement of Dr. Parran at Pepper hearings) 922—E; 933; [Parran] ★1224
HEARING: See also Ear
aid, Acousticon, Model A-55, 839
aid, Aurex Model C-B and Model C-A, 535
aid, Gem, Model V-4, C-186, 1397
aid, Maico, Model 42, 839
aids, 5 years of progress, (Council report) ★1213
Hard of Hearing week, 216
impairment in fliers, [Carson] ★6
improvement, temporary, in deafness, 325
Loss of: See Deafness
research, Parmly Foundation, 774
tests, audiometers, (Council report) 838; ★1213
tests, Maico Audiometer, Model D-8, 205
HEART: See also Arteries, coronary; Pericardium
abnormalities, x-ray diagnosis; role of roentgenologist; [Bromer] ★251
amphetamine inhalation after coronary occlusion effect on, 325
Asthma involving: See Asthma, cardiac
Auricular Fibrillation: See Auricular Fibrillation
Beat (premature): See Arrhythmia
beriberi, and pulmonary embolism, [Hussey] 400—ab
beriberi, in infant fed on boiled human milk; thiamine for, [Rascoff] ★1292
Disease: See also Endocarditis
disease and hypothyroidism, [Smith] 1065—ab
disease, care of children with, New York, 776
disease, citric acid in blood serum as sign of hepatic parenchyma lesion, [Somolinos d'Ardois] 486—ab
disease (congenital), endocarditis incidence in, [Gelfman] 1061—ab
disease (hypertensive also arteriosclerotic), papaverine in, [Elek & Katz] ★434
disease increases, U. S., 975
disease, joint session on, Chicago, 851
disease, misleading insurance advertising on: Pittsburgh exposes, 292—E
disease mortality in husbands and wives, [Ciocco] 1069—ab
disease (rheumatic) and labor in women, [Mendelson] 987—ab
disease (rheumatic), auricular fibrillation in, [Kossmann] 646—ab
disease (rheumatic) chronic, relation to upper respiratory disease, [Juster] 153—ab
HEART—Continued
disease (rheumatic) complicating pregnancy, [Hoffman] 476—ab
disease, total thyroidectomy for, [Parsons] 155—ab
disorders, diphtheric, in children; electrocardiogram, [Neubauer] 796—ab
electrocardiogram after coronary occlusion, [Master & others] ★1274
electrocardiogram after ligating coronary artery 30 years before, [Bradbury] 1425—ab
electrocardiogram, exercise and drug effects on, [Hartwell] 237—ab
electrocardiographic interpretation, course in, Chicago, 851
electrocardiographic study of lanatoside C, [Tandowsky] 1425—ab
Failure: See Heart insufficiency
function, examination, [Holzmann] 1073—ab
function, pneumonectomy effect on, [Cournand] 1339—ab
function tests after acute coronary occlusion, [Master & others] ★1271
Infarction: See Myocardium
Inflammation: See Pericarditis
insufficiency (failure), onset of in labor, signs of, [Mendelson] 987—ab
Irritable: See Asthenia, neurocirculatory
lesions (congenital), roentgen diagnosis, [Bromer] ★251
Los Angeles Tuberculosis and Health Association creates heart division, 707
murmurs and value of stethoscope, 1093—ab
murmurs in candidates for naval aviation, [Mitchell] 404—ab
Muscle: See Myocardium; Myocardium
New York Heart Association programs, 776; 852
oscillometry during work, [Christensen] 798—ab
Output: See also Blood circulation; Blood volume
output at each contraction, 1350
Rate: See also Pulse; Tachycardia
rate under 40 in athletes, especially in long distance runners, [White] 642—C
Rhythm: See Arrhythmia
silicosis and, 326; (reply) [Enzer] 872
size in children with rheumatic fever, [Keith] 1161—ab
surgery, Negro first to undergo suture performed by Dr. Williams, 348—ab
trauma from nonpenetrating chest injuries, [Sigler] 1335—C
tumor, and intrapericardial teratoma, surgical removal, [Beck] 397—ab
Valve: See Mitral Valve; Tricuspid Valve
HEAT: See also Burns; Cold; Diathermy; Fever; Fire; Temperature; Tropics
effect on vitamin C and on other nutrients, [Kohman] ★832; ★834
General Electric Heat Lamps, 204
moist, Kenny principles applied to knee injuries, [Hart] ★900
Production: See Metabolism, Basal
stroke in desert tank crews, Libya and Egypt, 780
HEATING, fuel rationing, (Dr. Bristol's subcommittee report) ★370; 376—E; 456—E; [Dean] 472—C
minimum, for buildings that use oil, New York, 708
HECTOR'S (Madame) Pomado, 391—BI
HEEL (of Shoe): See Shoes
HEIGHT: See Body
HEIL-OEL Liniment, Forni's, 470—BI
HELMETS: See Masks
HELMHOLZ Lecture: See Lectures
HEMANGIOMA, pigmented vascular nevus also hairy nevus, surgery for, [Smith] ★356
treatment, contact roentgen, [Howes] 1428—ab
HEMATIN Method: See Hemoglobin determination
HEMATURIA, blood sulfadiazine levels preceding, [Wright & Kinsey] ★1353
HEMIPLEGIA, after injecting local anesthetic for extracting teeth, 996
early movement after, 995
HEMOCHROMATOSIS, hemoglobin production factors in liver, [Whipple] 863—ab
HEMOCONCENTRATION: See Blood concentration
HEMOGLOBIN, advisable to return waste erythrocytes to donor? 727
estimation by alkaline hematin method, [Clegg] 1435—ab
level in cyclotron workers, [Warren] 865—ab
plasma protein concentration after, [Beattie] 1435—ab
reaction to purified protein derivatives, [Urbach] 1430—ab
production factors in liver, [Whipple] 863—ab
HEMOGRAM: See Blood picture
HEMOLYSINS: See under Blood groups
HEMOLYSIS: See Jaundice, hemolytic
HEMOPHILIA, antihemorrhagic effect of human milk in, 636
diagnosis, throat and nose signs, 1152
like disease in swine, 1042—E
HEMOPHILUS Influenzae: See Influenza
Pertussis: See Whooping Cough
HEMOPTYSIS, of nontuberculous origin, [Jackson] 565—ab
HEMOROINTMENT, 1334—BI
HEMORRHAGE: See also Hemophilia; Purpura; under names of diseases and organs affected
control, N-A (N-A No. 7, Vicine; Nature's Aid), 1156—BI
control: pressure points, 411
control, sulfapyridine as hemostatic, [Cunningham] 72—ab
control, tourniquet, danger in use in World War I, 894—ab
dentist will not extract teeth in menstruating woman, 1079
dicoumarin: [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Bollman & Preston] ★1021; [Butsch & Stewart] ★1025; 1040—E
exsanguinating, "safe" universal donor blood in, [Wiener] 232—ab
Menstrual Bleeding: See Menstruation
plasma protein concentration after, [Beattie] 1435—ab
Postpartum: See Labor hemorrhage
Prothrombin Relationship: See Blood prothrombin
prevention in newborn by giving menadione to mothers during labor, [Parks] 988—ab
reaction to purified protein derivative of tuberculin, [Urbach] 1430—ab
Thrombopenic: See Purpura
treatment, plasma and amigen, [Elman] ★1176
vitamin P and, 1401—E
HEMORRHOIDS, Freeman's Pyletts, 640—BI
Hemorointment, 1334—BI
internal, sclerosing solutions and syncope after injecting sylnasol, 167
thrombosed, and sudden injury (slipped; caught from falling) 325
Young's (Dr.) Rectal Dilators, 552—BI
HEMOSTASIS: See Hemorrhage control
HEMOTHERAPY: See also Blood Transfusion: Serum Therapy
human albumin in military medicine, 1041—E; [McIntire] 1137—ab
HENCH-Rosenberg Syndrome: See Rheumatism, palindromic
HENOCH'S Purpura: See Purpura
HENRY Yee: See Yee
HEPARIN and dicoumarin, combined administration, [Allen & others] ★1012; [Bollman & Preston] ★1023
treatment of thrombophlebitis; value of venogram, [Fine] 1340—ab
treatment of thrombosis and embolism, [Priestley] 481—ab; [Bauer] 1166—ab
HEPATITIS: See Liver inflammation
HERBS, Henry Yee Herb Co., 1334—BI
HEREDITY: See also under names of specific diseases as Cancer; Diabetes Mellitus; Dyschondroplasia; Epidermolysis bullosa
of blood groups, does child always have same type as parents? 87
of 30 different isoagglutinogens in erythrocyte of cattle, 536—E
HERNIA, hiatus (probable) or angina pectoris, 410
inguinal, differentiating complete and incomplete indirect, 1170
intestinal motility and postoperative distention, [Puestow] ★903
workers' absenteeism due to, relation to holidays, [McGee & Creger] ★1367
HEROES: See also World War II, heroes
Chicago newspapers' tributes to physicians, 699—E
HEROLIN Preparations, 640—BI
HERPES: See Dermatitis herpetiformis
HESPERIDIN, vitamin P and, 1401—E
HEXADRIN, 552—BI
HEXAMETHYLENETETRAMINE, rubber dermatitis from, 127—E; [Petro] 157—ab
HEXIN, 225—BI
HEXYLRESORCINOL enemas treatment for pinworms, 166
HIGH Blood Pressure: See Blood Pressure, high
Frequency Apparatus: See Diathermy
HILLSHIRE Down Cosmetics (employing goat's milk), 391—BI
HIP: See Thigh
HIRSUTISM: See Hair, excessive
HISTAMINE, diphosphate for periodic headaches (histamine cephalalgia), 249
headache, prostigmine bromide for, [Pelner] 1252—ab
injection, effect of gastric resection on gastric acidity, [Friedell & others] ★666
injection, range of gastric acidity, 656
shock, 386
HISTOLOGY: See Cells; Tissues
HISTORY of Medicine: See Medicine
HITLER'S Rule: See Germany
HOARSENESS in pulmonary tuberculosis masquerading as laryngitis, [Donnelly] ★675
HOBBY Show: See Physicians avocations
HODGKIN'S DISEASE with specific lesions first in skin, [Reimann] 1163—ab
HOGG Foundation: See Foundations
HOGS, hemophilia-like disease in swine, 1042—E

HOLBROOK, Major W. P., resigns from A. M. A. Committee on Health Resorts, 628—OS
HOLIDAYS, relation to workers absenteeism, [McGee & Creger] ★1367
HOLLANDER'S use of metal grater as pain sensitivity test, 249
HOME: See also Buildings; Housing; Nursery
accidents in, (National Safety Council report) 62; (campaign against, N. Y.) 299
fuel rationing, (Dr. Bristol's subcommittee report) ★370; 376—E; 456—E; [Dean] 472—C; (N. Y.) 708
HONEY Facial Bath, 391—BI
HONGKONG Foot: See Dermatophytosis
HOOKWORM Infection: See Ancylostomiasis
HORMONES: See Endocrine Glands
Sex: See Androgens; Estrogens; Gonadotropins
Steroid: See Steroid
HORNER'S SYNDROME, 1080
HORSES, Encephalitis In: See Encephalitis, Epidemic, equine
HOSIERY: See also Shoes
Dr. McKenzie's Sanitary Health Sox, 470—BI
Elastic Two-Way Stretch, Junoform, 204
painting legs, applying lotion in place of silk hose harmful? 410
HOSPITALIZATION Insurance: See Hospitals, expense insurance
HOSPITALS: See also Clinics; Medicolegal Abstracts at end of letter M
administrators, memorandum for essential positions and the war effort, 56; (appeals for physicians) 1132
American Hospital Association (elections), 1051; (awards silver cup to Massachusetts state hospitals) 1147; (Dr. Caldwell resigns) 1406
American Hospital in Britain, Ltd., casualty anesthesia at, [McCarthy] ★599
A. M. A. Council on: See American Medical Association
Approved: See Hospitals, registered and approved
Army: See Medicine and the War
associations, A. M. A. meetings with representatives of, 628—OS
Barnard Hospital Lecture: See Lectures
beds for workers at shipyards, Oregon, [Fitzgibbon] 1140—ab
benefits and disability insurance, analysis of Eliot bill (Bureau report), 296—OS
blood plasma reserve in federal aid to build up, 209
CCC camps for girls with venereal disease, 62
Chicago's, methods used in resuscitating newborn, (reply) [Bundesen] 995; (reply) [Gill] 1444
competitive bidding for interns: extended to unwarranted salary levels, 1129—E
corporations engaging in practice; relation to physicians, A. M. A. Committee to study, 628—OS
District of Columbia, 298
emergency base, (organization of) 542; 57; (physicians for) 209; 542; (establish in interior of all coastal states) 704
emergency, new, in Natal City, 976
Expense Insurance: See also Medical Service plans
expense insurance, for shipyard workers, Ore., [Fitzgibbon] 1139—ab
expense insurance, Kaiser's and Davis' testimony at Pepper hearings, 922—E; 944; 964
Group Hospitalization: See Hospitals, expense insurance
Guy's, England (depletion of staff) 385; (teaching at) 1053
Hotel-Dieu de St. Joseph, tercentenary, 216
"hutted": 51,000 beds added to England's accommodations, 849
in Tobruk under siege, 779
Infection (Cross) in: See Infection, cross
institute, 2nd Latin American, 976
Insurance: See Hospitals, expense insurance
Interns; Internships: See Interns; Internships
isolation wards for scarlet fever, cross infection in, [Stalker] 319—ab
Lankenau, $2,000,000 bequest to cancer institute at, 60
Manhattan General, reconstruction surgery ward, 300
maternity, adopt "rationing": reduce stay to 7 days; eliminate nonessentials, Conn., 1147
maternity, bed rest (7 to 9 days) after childbirth, 631; 801
Medical Preparedness and: See Medicine and the War
Medical Service Plans: See Hospitals expense insurance
Military: See Medicine and the War
Mount Sinai, awards Dazian fellowships, 300
Mount Sinai, 90th year; tribute to Bernard Sachs, 975; 1219—E
Nurses; Nursing: See Nurses; Nursing
Operating Room: See Surgery
patients asked to forego luxury, (D. C.) 213; (Conn.) 1147
Percy Jones General, formerly Battle Creek Sanitarium, 1220
Presbyterian, reorganized, Chicago, 461
HOSPITALS—Continued
priority for war workers, England, 856
Psychiatric: See also Hospitals, state
psychiatric, committee report, N. C., 708
psychiatric, new, Pittsburgh, 61; 463
registered and approved by A. M. A., 972—OS
Residencies: See Residencies
Rhode Island, volunteer service at, 1408
Rothschild-Hadassah-University, Jerusalem, 64
Russian, blankets purchased by Russian War Relief, Inc., for, 849
St. Elizabeth, La Fayette, Ind., correction for new AMERICAN MEDICAL DIRECTORY, 709
St. Luke's Hospital approved for surgical residencies (correction) 137
St. Raphael, dedicated, Conn., 1326
Samaritan, Troy, staff to continue intern education at, with only 2 interns, 776
Service: See also Medical Service
service, facilities in Bolivia, 220
service, medical care for wives and infants of men in military service, 846
service, medical planning by British Medical Association, 139; 460—OS; 1312—E; 1410
service, organization of, for victims of Boston fire disaster, 1223; [Faxon & Churchill] ★1385
Sheldon Memorial, remodeled, Mich., 59
Sheltering Arms, for Kenny treatment of poliomyelitis, Minneapolis, 59
standards for care of crippled children, 538—E
State: See also Hospitals, psychiatric
state cancer, (Tex.), 300; 1050 (W. Va.) 301
state, commission report, N. Y., 1327
state, Illinois, concentrated program for general paralysis patients, 1406
state, Massachusetts awarded A. H. A. silver cup, 1147
state, Oregon, deaths attributed to poison (roach powder), 1050
state, typhoid carriers, Illinois, 298
sugar rationing for acutely ill patients in, 130
surgeon, Philip Baxter, helps to save, 635
temperature (minimum) for, (Dr. Bristol's subcommittee report) ★371; 376—E
United Hospital Fund annual campaign, N. Y., 708
U. S. Navy, (in Panama) 627; (scope of) [McIntire] 1136—ab
Units: See Medicine and the War
University of Chicago, postpone construction, 707
Welfare Island, now Goldwater Hospital, 1407
Welfare Island, study of marihuana, 1128—E
Wesley, to be venereal disease clinic, Chicago, 298; (dedicated) 1236
Winifred Wagner House, Germany, 138
HOT: See also Heat
water bottles, how to conserve, 847
HOUGHTON Mifflin Award: See Prizes
HOUSE dust, allergy to, 1444
HOUSING: See also Buildings; Homes
project quarantined for poliomyelitis, N. J., 60; 135; 215; 382
war, health problems, [Freedman] ★9
HOUSTON'S Mineral Water, 785—BI
HOYT'S Compounds, 225—BI
HUMANITIES, new school of, at Stanford, 59
HUME, E. E., medals of the Army Medical Department, 1400—E
HUMERUS, tumor, symmetrical enlargement of right arm, 995
HUMIDITY and fumigation, 625—E
humidification in homes, (Dr. Bristol's subcommittee report) ★371; 376—E
HUMM, 308—BI
HUMORS, control of internal secretion, 456—E
HUNGER: See Fasting
HUNTER College, annual x-ray and serologic tests required at, 463
HYDATID Disease: See Echinococcosis
HYDRARTHROSIS, intermittent, 578
HYDROCIN Tablets, Renton's, 552—BI
HYDROGEN peroxide to bleach hair on legs, 727
sulfide, ammonium, Willat Method of Heatless Permanent Waving, 471—BI; 1156—BI
HYDROGENATION process applied to food, [Kohman] ★837
HYDRONEPHROSIS, unilateral nephrectomy, [O'Conor] ★581
HYDROPHOBIA: See Rabies
HYDROPS intermittens: See Hydrarthrosis
HYDROTACHYSTEROL, di: See Dihydrotachysterol
4-HYDROXYCOUMARIN, 3,3'-Methylene-bis: See Dicoumarin
HYDROXYETHYLAPOCUPREINE hydrochloride, sodium salt of, for influenzal meningitis, [Scully] 721—ab
HYGIENE: See Health; Sanitation
Industrial: See Industrial Hygiene
Mental: See Mental Hygiene
School: See Schools
HYOID bone: muscle attachments role in deep infections of neck, [Orton] ★874
HYPEREMESIS gravidarum: See Pregnancy, vomiting of
HYPERHIDROSIS: See Sweat
HYPERKERATOSIS, follicular, avitaminosis A lesion, [Straumfjord] 401—ab
HYPERNEPHROMA, origin of dystopic tissues, [Gruenwald] 1253—ab
HYPEROSTOSIS: See Ear
Flowing, of an extremity: See Melorheostosis
HYPERPARATHYROIDISM: See Parathyroid
HYPERPYREXIA: See Fever, therapeutic
HYPERSENSITIVITY: See Anaphylaxis and Allergy
HYPERTENSINASE, 923—E
HYPERTENSINOGEN, 923—E
HYPERTENSION: See Blood Pressure, high
HYPERTHYROIDISM: See also Goiter
angina pectoris in, [Fischer] 83—ab
recurrent, after surgical treatment, 1262
treatment, Crile's bilateral adrenal denervation, 411
HYPERTROPHY: See under organ or region affected as Prostate; Stomach
HYPNOSIS, conditioned reflex treatment of alcoholism established under, [Kroger] 714—C
HYPNOTICS: See Sedatives and Hypnotics
"HYPO" Baths: See Sodium Thiosulfate
HYPOGLYCEMIA: See Blood sugar
HYPOGONADISM: See Gonads
HYPOPARATHYROIDISM: See Parathyroid; Pseudohypoparathyroidism
HYPOPHYSIS: See Pituitary
HYPOPROTEINEMIA: See Blood proteins
HYPOPROTHROMBINEMIA: See Blood prothrombin
HYPOTENSION: See Blood Pressure, low
HYPOTHERMIA: See Cold, therapeutic use; Temperature, Body
HYPOTHYROIDISM: See also Myxedema
heart disease and, [Smith] 1065—ab
hypertension in, thyroid medication contraindicated? 1169
obesity in young girl, 88
progressive myopia in children relation to, 872
HYSTERECTOMY: See Uterus, excision
HYSTERIA, aphonia, [Greene] ★1196
War: See Neurosis

I

ICE, craving for, and anemia, 1261
packs, how to conserve, 847
ICTERUS: See Jaundice
Gravis: See Liver, atrophy (acute yellow)
IDENTIFICATION tags for civilians in target areas; OCD Bulletin No. 5, 542
of dead in Cocoanut Grove disaster, Boston, [Faxon & Churchill] ★1385
ILEITIS, regional, right colectomy for, [Lahey & Sanderson] ★1359
terminal; its x-ray picture, [Strömbeck] 161—ab
ILEOCOLOSTOMY in segmental enteritis, [Robbins] 1068—ab
ILEOSTOMY, terminal, in ulcerative colitis, [Maingot] 867—ab
ILL, EDWARD J., memorial, 546
ILLINOIS: See also Chicago; University of Illinois
Association for the Crippled, Inc., 1236
Eye and Ear Infirmary transferred to U. of Illinois, 213
Institute of Technology, Parmly Foundation, 774; 1406
Neuropsychiatric Institute, nurse training program, 1406
ILLNESS: See Disease
ILLUSTRATION: See Art
IMMERSION foot, 1216—E
IMMIGRANT: See Physicians, foreign
IMMUNITY: See also Antibodies; under names of specific diseases
protein reserves and, Dr. Cannon's address on, 1309—E
IMMUNIZATION: See also Diphtheria; Scarlet Fever; Tuberculosis; etc.
motion picture by Lederle available, 136
preparations, add procaine to allay pain after injecting, 802
program expanded to include diphtheria, Ia., 545
IMMUNOLOGISTS, American Association of, (Dr. Cannon's address) 1309—E
IMPETIGO contagiosa, etiology, [Campbell] 793—ab
IMPLANTATION: See Desoxycorticosterone; Estrogens; Radon
IMPOSTORS: See also Criminals
Mendoza (John A.), claim adjuster contracts medical service, 777
Phillips (Arthur Osborne), criminal impersonator, 128—E; 145—BI; 461
IMPREGNATION: See also Pregnancy
artificial, Huhner test should precede; priority in injecting aspirated spermatozoa into cervix, [Huhner] 787—C
artificial, treatment of sterility, [Guttmacher] ★442
INCOME: See also Fees
limitation in participants of medical service plans, [McCann] ★1320; [Kress] 1322—ab; [Scott] 1323—ab
Tax: See Tax
INDEX Animalium, death of author: Dr. C. D. Sherborn, 219
INDIA, malaria epidemic in, 778
war casualties, 1240
INDIANS, American, absence of beard: pseudohypoparathyroidism, [Albright] 155—ab
INDICANURIA: See Urine
INDIGENT: See Physicians, indigent

INDIGESTION, differential diagnosis, [Gill] 406—ab
Severe Chronic Intestinal: See Celiac Disease
workers' absenteeism due to; relation to holidays, [McGee & Creger] ★1367
INDUCTOPYREXIA: See Fever, therapeutic
INDUSTRIAL ACCIDENTS: See also Workmen's Compensation
advisory committee, Mass., 214
air screw injuries extensive in aircraft apprentice, [Howkins] 570—ab
Commission of Maryland and occupational diseases; first annual report, 626—E
factory, and the war, England, 1330
in Germany, 848
increase, England; Medical Research Council report on personal factor in, 841—E; 856
National Safety Council report, 62
sudden injury and thrombosed hemorrhoid, 325
INDUSTRIAL DERMATOSES, [Downing] 1433—ab
course in, Chicago, 971
lime dust, preventing, 801
INDUSTRIAL DISEASES: See also Industrial Dermatoses
benzene poisoning especially from making synthetic rubber, [Wilson] 1252—ab
breast lesions in men handling diethylstilbestrol, [Scarff] 406—ab
coffee dust inhalation, hazard, 412
coronary thrombosis from toxic gases, and physical agents, [Leinoff] 646—ab
furunculosis in coal miners, [Möhlenbruch] 487—ab
Industrial Accident Commission of Maryland and, 626—E
lead arsenate poisoning in fruit farmer, [Kilgore & Rhoads] ★1125
muscular cramps on exertion and caisson disease, 248
*di*nitrotoluene exposure, metabolic disorders from, [McGee] 1426—ab
oral manifestation, [Schour & Sarnat] ★1197
Pneumonoconiosis: See Pneumonoconiosis
poisoning from drosses, 1079
reporting, Council discusses, 42
Silicosis: See Pneumonoconiosis
INDUSTRIAL HEALTH: See also Industrial Hygiene
A. M. A. Annual Congress on (fifth), 1128—E; (program) 1145—OS
A. M. A. Council: See also American Medical Association
A. M. A. Council discusses industrial health, 42
arc welding fumes and gases affect susceptibility to tuberculosis? [Gardner] 1065—ab
citric acid exposure, 658
coronary thrombosis (acute), [Leinoff] 314—ab
course, (teaching day, New York), 215; (for physicians at Yale) 298; (at Long Island) 300; (at Loyola) 631; (tuition fee reduce at Long Island) 632; (Philadelphia) 1149; (New York Post-Graduate) 1327
cyclotron workers, blood counts in, [Warren] 865—ab
fellowships, Kemper, in surgery, 1048
fellowships, P. Duff & Sons established, 776
in the tropics (rubber plantations) [Dreisbach] ★1192
institute, (Va.) 463; (W. Va.) 708
keratoconjunctivitis (epidemic): "shipyard conjunctivitis," 538—E; [Hogan] 988—ab; (sulfathiazole for) [Walter] 1157—C
medical and surgical clinic: "Keep 'Em Working," Wis., 709
medical practice problems, postgraduate institute, 974
medical service (emergency) in war department plants: OCD memorandum, 131; 1313
medical service for shipyard workers, Oregon, 922—E; (Kaiser discusses) 944; [Fitzgibbon] 1139—ab
medical service for U. S. Census Bureau employees, 384
medical service in defense plants, physicians for, [Parran] ★1225
medical service plans, Council discusses, 43
medicine and surgery, Central States Society, 1326
nursing, Council discusses, 43
nutrition advisory service, 975
physical examinations, Council discusses, 42
physicians, criteria for determination of those essential, 56
physicians, training program, Mich. 851
physicians willing to go into, 210
program, Kentucky, 1048
Nutrition Foundation, Inc., supported by industrial corporations, 374—E; 1051
venereal disease control program, Advisory Committee report, [Anderson & others] ★828
work activities in myocardial infarction, [Rathe] ★99
work (war) by women and pregnancy, England, 779
workers' absenteeism due to gastrointestinal upsets; relation to holidays, [McGee & Creger] ★1367
workers, care of women during and after pregnancy, 55; (England) 779
INDUSTRIAL HEALTH—Continued
workers, children of care for, under Lanham Act funds, Conn., 298
workers conference on health, Illinois, 298
workers, employing those with venereal disease, [Anderson & others] ★830 (correction) 1051
workers, examine for tuberculosis, (Wichita) 775; (U. S. government) 976; (Argentina) 1331
workers, migration of labor and epidemics, 767—E
workers (war) excessive use of sugar and carbonated beverage, (Council report), 765
workers (war), hospital priority for, England, 856
workers (war), promotion depression, [Flanagan] ★1383
working conditions and fatigue, 698—E
INDUSTRIAL HYGIENE: See also Industrial Health
directory of personnel, 136
division created, Kan., 214
Foundation, meeting, 778; 1329
metal safety and glare goggle, [Stieren] ★26
safety and hygiene conference at Cincinnati, Sept. 17-18, 294
Seeger (S. J.) named consultant, 384
unit (Ore.) 60; (St. Louis) 545; (Wash.) 633; 1149
INDUSTRIAL INJURIES: See Industrial Accidents; Industrial Diseases
INDUSTRIAL POISONING: See Industrial Dermatoses; Industrial Diseases
INDUSTRIAL STRIKES, need for honest apology and teamwork, [Swaim] 982—C
INFANTILE PARALYSIS: See Poliomyelitis
INFANTILISM, Intestinal: See Celiac Disease
INFANTS: See also Children; Infants, Newborn; Pediatrics; under names of specific diseases as Influenza; Syphilis
blood bank (Irwin Memorial) for, San Francisco, 1326
cancer in, [Ritvo] 1342—ab
cancer of lung in, [Hauser] 402—ab
facial dermatitis in, 490
feeding, beriberi heart in infant fed on boiled human milk, [Rascoff] ★1292
feeding, carotinemia in breast fed, [Almond] 1256—ab
feeding, Clapp's Cereal Food, 453
feeding, dietary fat effect on urobilin in stools, [Josephs] 793—ab
feeding, Gerber's Strained Peaches, 697
feeding; human vs. cow's milk; vitamins and supplementary foods, [Jeans] ★913
feeding, nicotine excretion in breast milk from smoking, [Perlman & others] ★1003
feeding, recipe for vegetable milk substitute using taro root, [Feingold] 480—ab
feeding, soft curd homogenized milk in, [Wolman] 316—ab
health record (continuous) for, Germany, 1313
iron requirement, [Heath] ★367; ★368
malaria in 3 month old, [Reisman] 1068—ab
mineral metabolic balances (mgs. per day: intake; retention) [Macy] ★37; ★38; ★41
mortality under Hitler's rule, 138
nasopharyngeal culture vs. cough plate method, [Brooks & others] ★883
polyneuritis with leg paralysis due to whooping cough, [Santa María] 1438—ab
subtoxic nutritional disorder, yellow feces and paralytic ileus; enteral influenza, [Tobler] 320—ab
temperature (minimum room) for, fuel oil rationing (Dr. Bristol's subcommittee report) ★371; 376—E; 456—E; [Dean] 472—C
Test-Tube Baby: See Impregnation, Artificial
INFANTS, NEWBORN: See also Fetus
Death of: See Stillbirth
diarrhea outbreak, O., 853
hemorrhage in, menadione given during labor to prevent, [Parks] 988—ab
hemorrhage (intracranial), management of 1079
intestinal obstruction, clinical signs; x-rays fail to show, [Stadler] ★1384
mineral composition of body of, [Macy] ★35
myasthenia gravis in, of myasthenic mother, [Strickroot & others] ★1207
Paternity of: See Paternity (cross reference)
prothrombin deficiency, [Butt] ★1039
resuscitation: methods used in Chicago's hospitals, (reply) [Bundesen] 995; (reply: failure due to cerebral hemorrhage) [Gill] 1444
sulfonamide toxicity in; fatal acute yellow atrophy of liver, [Ginzler] 232—ab
sulfonamides in human milk effect on, [Cibils Aguirre] 485—ab
vitamin K ointment for, absorbed by skin, [Vollmer] 1162—ab
Weight: See Fetus
INFARCTION: See Myocardium
INFECTION: See also Bacteria; Immunity; Meningococcus; Pneumococcus; Staphylococcus; Streptococcus
acute, action of peroxidase in blood plasma in, [Möllerström] 487—ab
INFECTION—Continued
cross, in scarlet fever bed isolation wards, [Stalker] 319—ab
danger of, from intradermal tests and unsterilized needles, 326
Focal: See Teeth, infected
mixed, in bacterial endocarditis, [Orgain] 231—ab
psychosis after, [Enke] 1438—ab
pyogenic, ultraviolet blood irradiation (Knott technic), [Miley] 990—ab
roentgen rays effect on, [Weed] 481—ab
vitamin A deficiency in relation to, [Butt] ★1032
vitamin C relation to, in children, [Abt] 1161—ab
Wound: See Wounds
INFECTIOUS DISEASE: See also Epidemics; under names of specific infectious diseases
susceptibility to, increased as result of insufficient diet, 1309—E
INFLAMMATION: See also under names of specific diseases and organs as Gastroenteritis; Intestines; Pancreatitis; Stomach
effect of x-rays on, [Weed] 481—ab
INFERTILITY: See Sterility
INFLUENZA, enteral, in infants with yellow feces and paralytic ileus, [Tobler] 320—ab
epidemic, prevention, (disinfect air, vaccination, inhale immune serum) [Stokes & Henle] ★16
epidemic, staphylococcic pneumonia during, [Finland] 719—ab
Hemophilus influenzae infections in young children, [Alexander] 76—ab
Hemophilus influenzae (type B) meningitis in children, [Neter] 76—ab
meningitis, treatment: type B rabbit antiserum, sulfonamides and hydroxyethylapocupreine, [Scully] 721—ab
mortality in husbands and wives, [Ciocco] 1069—ab
pandemic, epidemic and endemic forms, [Horsfall] ★284
psychosis after, [Enke] 1438—ab
vaccination (control), students and teachers cooperate, N.Y., 1327
vaccination with virus A, [Horsfall] ★286
virus B, [Burnet] 652—ab
INFRA-RED RAYS, General Electric Heat Lamps, 204
INFUSION: See Injection
INHALANT A also N, (Council report) 287
INHALATION: See Anesthesia; Coffee dust; Inhalant
of Dust: See Pneumonoconiosis
INHIBIN, lack of, in new syndrome, 1400—E
INJECTION: See also under names of specific substances
glass and plastic device for administering morphine, technic, 1133
intramedullary (sternal) transfusion, 220
Intravenous: See also Anesthesia; Blood Transfusion; Tuberculosis, treatment; Varicose Veins; under specific substances
intravenous, circulatory overloading after, [Sharpey-Schafer] 1435—ab
paravertebral, of alcohol, complication, in angina pectoris, [Hirschboeck] 479—ab
parenteral, amphetamine sulfate in gelatin for, [Myerson] 477—ab
Subcutaneous: See Oxygen
INJURIES: See Accidents; Casualty; Cranium; Eyes; Trauma; etc.; Medicolegal Abstracts at end of letter M
Industrial: See Industrial Accidents
War: See World War II
INOCULATION: See Immunization; Vaccination
INOSITOL, position among the B vitamins [Elvehjem] ★1395
INSANE Asylums: See Hospitals, psychiatric
INSANITY: See Dementia Precox; Mental Disorders; etc.; Medicolegal Abstracts at end of letter M
INSECTICIDES, chemistry helping in man's battle against insects, 207—E
fatal roach powder poisoning at Oregon state hospital, 1050
lead arsenate poisoning in fruit farmer, [Kilgore & Rhoads] ★1125
INSECTS: See also Bees; Flies; Mosquitoes
bites, hypersensitivity to, 871
Larva Infestation: See Myiasis
nutritive value as food, [Wilder & Keys] ★532
INSEMINATION, Artificial: See Impregnation
INSIGNIA, civilian defense, specifications and use, 970
INSOLE: See Shoes
INSTITUTE: See also National Institute; Psychoanalysis
Graduate: See Education, Medical, graduate
of Endocrinology of Montevideo, 637
of Inter-American Affairs, 632; (papers given at) ★1186-★1192
of Medicine of Chicago, (Professor Shryock to address) 774; (new officers) 1406
of Social Medicine endowed at U. of Oxford by Lord Nuffield, 137; 218
on war medicine for dentists, Chicago, 631
INSTRUMENTS: See also Apparatus; Medical Supplies; Needles
in Royal College of Surgeons museum; Thompson's illustrated catalog, 1330

INSTRUMENTS—Continued
Sterilization of: See Sterilization, Bacterial
suturing (new surgical), [Goodman] ★281
zephiran chloride for sterile storage of, N. N. R. (description) 289; (Alba) 289
INSULIN allergy: generalized symptoms, [Goldner] 1341—ab; [Watson] 1432—ab
Protamine Zinc: See Diabetes Mellitus
shock, effect on leukocyte picture in allergy, [Rausch] 653—ab
Shock Therapy: See also Dementia Precox
shock therapy: preventing secondary hypoglycemic shock, [Olsen] 235—ab
shock, vitamin C behavior in, [Haid] 653—ab
supply of Switzerland, 1153
Treatment: See also Diabetes Mellitus, insulin in; Insulin shock therapy
treatment of underweight, [Greco] 477—ab
INSURANCE: See also Workmen's Compensation; Medicolegal Abstracts at end of letter M
advertising (misleading) on heart disease; Pittsburgh exposes, 292—E
companies, A.M.A. Committee to study relation between physicians and, 628—OS
disability, benefits: analysis of Eliot bill (Bureau report) 296—OS
health, in Australia, 1405—OS
health, in Canada, 1404—OS
health national, 30 years, England, 302
health, plans adopted by Manitoba Medical Association, 773—OS
Hospitalization: See Hospitals, expense insurance; Medical Service plans
Life: See also Metropolitan
life, Association of Medical Directors of (program) 547
Medical Society Service Plan and: See Medical Service plans
premiums of those in armed forces, liability for, (Bureau report) 540
INTELLIGENCE TEST scores and sodium amytal, [Slater] 242—ab
U. S. Army to train psychologists to sift illiterate selectees, 541
INTER-AMERICAN Affairs, Institute of, 632; (Session on Health Problems) [Fishbein] ★1186; [Sawyer] ★1189; [Dornelles] ★1190; [Dreisbach] ★1192
INTERNAL MEDICINE, course in Latin America, 464
INTERNAL SECRETIONS, Glands of: See Endocrine Glands
INTERNATIONAL: See also list of Societies at end of letter S
Chiropractors Association, antivaccinationist pamphlet, 207—E
Medical Assembly of Inter-State Postgraduate Medical Association, (meeting) 301
INTERNS: See also Internships; Residencies
competitive bidding for: even extended to salary levels, 1129—E
education at Samaritan Hospital, Troy, staff to continue with only 2 interns, 776
Military Service: See Medicine and the War
INTERNSHIPS: See also Residencies
Hospitals approved for: See Hospitals, registered and approved
one year, and the war effort, [Rowntree] ★1228
INTER-STATE Postgraduate Medical Association, 301
INTERVERTEBRAL Disks: See Spine
INTESTINAL Infantilism: See Celiac Disease
INTESTINES: See also Appendix; Colon; Duodenum; Feces; Gastrointestinal Tract; Jejunum; Mesentery; Rectum; etc.
Anastomosis: See Colon cancer
Cancer: See Colon cancer; Rectum cancer
Disease: See also Appendicitis; Colitis; Diarrhea; Dysentery; Gastroenteritis; Typhoid
disorders and service in U. S. Army, [Kantor] ★254
diverticulum, Meckel's, [Heyn] 797—ab
functional distress after poliomyelitis, 167
Gas in: See Flatulence
Hernia: See Hernia
infection, sulfaguanidine for, [Kirsner] 231—ab
Inflammation: See also Gastroenteritis
inflammation, Giardia enteritis in nursery, atabrine cures, [Ormiston] 991—ab
inflammation; obstruction, workers' absenteeism due to, [McGee & Creger] ★1367
inflammation, segmental enteritis, resection and ileocolostomy for, [Robbins] 1068—ab
influenza in infants with yellow feces and paralytic ileus, [Tobler] 320—ab
Intussusception: See Intussusception
Large: See Colon
motility and postoperative distention, [Puestow] ★903
obstruction in early infancy; clinical diagnosis; x-rays fail to show, [Stadler] ★1384
parasites, infections, [Headlee] 791—ab
parasites, warning about veterinary anthelmintics, 217
sheep, for surgical sutures: (WPB instructions) 294; (shortage) 547
INTESTINES—Continued
sulfaguanidine toxicity; absorption by, [Cole] ★196
sulfonamides action on, [Lindelöf] 162—ab
Surgery: See Appendectomy; Colectomy; Colon surgery; Colostomy; Ileostomy
tuberculosis (pulmonary) involving; fever in, [Tchertkoff] 79—ab
tuberculosis, secondary ulcerative, ultraviolet ray therapy, (Council report) ★622; ★623
Whipple's disease or lipodystrophy, [Pearse] 81—ab
INTOXICATION: See Alcoholism
INTRACRANIAL Hemorrhage: See Brain
INTRADERMAL Tests: See Skin tests
INTRAGASTRIC Drip Therapy: See Peptic Ulcer, treatment
INTRAMEDULLARY Infusion: See Bone Marrow
INTRAVENOUS Anesthesia: See Anesthesia
Medication: See Injection, intravenous
INTUSSUSCEPTION, acute, in children, [Edberg] 1166—ab
acute, in children; relation to mesenteric lymphadenitis, [Avent] 481—ab
INULIN, reduced blood pressure and pyrogenic reaction in hypertension, [Chasis] 237—ab
IODIDES: See also Potassium Iodide
treatment of syphilis in presence of tuberculosis, 802
IODINE, radiations from, for osteomyelitis: Durante-Roentgen method, 140
use in pregnancy, 1443
IODIZED oil for bronchography in bronchiectasis, [Wishart] ★1181
IODOBISMITOL with saligenin; bismuth hepatitis at San Quentin, [Kulchar & Reynolds] ★343
IODOCHLOR, therapeutic pericarditis in coronary insufficiency, [Rakov] 231—ab
ION TRANSFER, sodium sulfathiazole, [Boyd] 566—ab
IONTOPHORESIS: See Ion Transfer
IOWA Anesthesiological Society: proposed, 545
IRITIS, nodular, with Boeck's sarcoid, [Thornhill] 647—ab
IRON, daily allowances, [Heath] ★366; [Wilder & Keys] ★530; (in British diet) ★534
metabolism on white and brown bread diets, [Widdowson] 82—ab
radioactive, metabolism of, 1399—E
shortage in milk, 426—ab
Tonic Pills, Chumanie's, 640—BI
IRRADIATION: See Radiation
ISCHEMIA: See Kidneys; Placenta
ISOAGGLUTININS; Isoagglutinogen: See Blood groups
ISOTONIC Solution of Three Chlorides: See Chlorides
ITCH: See Scabies
ITCHING: See Eczema; Pruritus
IVY, A. C.: Carter's Little Liver Pills activate bile flow? 1219—E
IVY, Poison: See Rhus

J

JACKSON, EDWARD, death; portrait, 781
JACKSON Lecture: See Lectures
JACOBI Fellowship: See Fellowships
JAMES' (Dr.) headache powder daily for 16 years, toxic effects, [Austin] ★911
JAMS, sugar content, legal standards, [Kohman] ★837
JAPANESE at War: See World War II
physician, alien, sentenced for abortion, Ariz., 851
JAUNDICE, bismuth hepatitis at San Quentin prison, [Kulchar & Reynolds] ★343
diagnosis, prothrombin test, [Abbott] 398—ab
hemolytic congenital, splenic neutropenia: new syndrome, [Wiseman] 153—ab
hemolytic familial, [McLaughlin] 1069—ab
in Brazil after yellow fever vaccination, [Fox] 987—ab
intermittent icterus (cholemia) juvenile, liver biopsy in, [Krarup] 320—ab
outbreak in U. S. Army, 46—E; (Circular Letter No. 45) supplement, 51
postvaccinal yellow fever: chiropractic theory of patriotism, 207—E
spirochetal, in New York City [Tiffany] 1426—ab
spirochetal, Weil's disease, [Kramer] 1254—ab
JAWS: See also Teeth
industrial lesions, [Schour & Sarnat] ★1197
labored respiration from dropping mandible, 728
roentgen therapy for tuberculosis lymphadenitis mass at angle of, 167
submaxillary infections after tooth extraction, [Orton] ★876
JEJUNUM ulcer and hemorrhage after gastrectomy for peptic ulcer, [Kiefer] ★819
JELLY, lubricating, MacKenzie's formula for, 847; 1134
sugar content, legal standards, [Kohman]
JOIE de Vivre, 307—BI
JOINTS: See also Ankle; Arthritis; Elbow; Knee
JOINTS—Continued
Effusions in: See Hydrarthrosis
"knuckle pads" and Dupuytren's contracture, 412
Tuberculosis: See Arthritis, tuberculous
JOLO, 225—BI
JORDEAU Waterless Shampoo, 391—BI
JOURNALS: See also Articles; Library; Newspapers
Amatus Lusitannus, 216
America Clinica, [Fishbein] ★1188
American Journal of Clinical Pathology, new editor: Dr. Davidsohn, 1051
A.M.A. Spanish and Portuguese monthly digests, 628—OS; [Fishbein] ★1188
Annals of Medical History suspended, 709
Archives of Biochemistry, 464
Biological Abstracts, new abstracts of food and nutrition research in, 854
British Medical Journal and other journals smaller, England, 218
Editors, Annual Conference: See American Medical Association
Gastroenterology, 709
Hawaii Medical Journal issue on casualties at Pearl Harbor, 1217—E
J.A.M.A.: See American Medical Association
Journal of Mount Sinai Hospital special issue honoring Dr. Bernard Sachs, 975; 1219—E
Nutrition Reviews, 374—E
Parent's Magazine medal to Sister Kenny, 1238
Presse médicale suppressed; Prof. Lapicque arrested, 1409
Reader's Digest, de Kruif's article on syphilis, 48—E; [Cole] 226—C
Rocky Mountain Medical Journal new editor: Dr. Mason, 1048
Saturday Evening Post on medical manpower, 1308—E
War Medicine, published on monthly basis, 629—OS
JUDD (Catherine B.) Prize: See Prizes
JUMP: See Parachute
JUNOFORM Two-Way Stretch Elastic Hosiery, 204
JURISPRUDENCE, Medical: See Medical Jurisprudence, 657

K

KAHN Test, research in Argentina, 303
in juvenile syphilis treated with mapharsen, [Levin & others] ★1373
sensitivity and specificity, [Green] 1247—ab
KAISER INDUSTRIES, medical service for shipyard workers, [Fitzgibbon] 1139—ab
shipbuilder (H. J. Kaiser) at Pepper hearings, 840—E; 922—E; (testimony) 944
KA-NO-MOR, 552—BI
KANSAS accident report (10th annual), 50—E
City Southwest Clinical Society, 299
KAPOSI'S Sarcoma: See Sarcoma
KELEMENT, 66—BI
KEMA Tablets and Kema Tea, 1334—BI
KEMPER, PAUL R., Luvos Pack and Luvos Minerals, 66—BI
KEMPER Fellowships: See Fellowships
KENDALL, ARTHUR I., retires, 461
KENNY, ELIZABETH, (honored at opening of unit, Iowa) 382; (American Congress of Physical Therapy awards gold key) 384; (awarded *Parent's Magazine* medal) 1238
Treatment: See Knee injuries; Poliomyelitis
KERATITIS, interstitial, bismarsen for, [Beerman & others] ★337
KERATOCONJUNCTIVITIS, epidemic: "shipyard conjunctivitis"; isolation of virus, 538—E; [Hogan] 988—ab; (sulfathiazole for) [Walter] 1157—C
17-KETOSTEROIDS, relation to pregnancy toxemia, [Taylor] ★595
KIDNEYS: See also Urinary System
arteriosclerosis of, with hypertension in diabetic, [Lisa & others] ★192; (correction) 384
blood stream infection of cortex of, [Gibson] 401—ab
Calculi from Sulfonamides: See Urinary Tract calculi
calculi, tumor, carbuncle, ectopia, etc., unilateral nephrectomy in, [O'Conor] ★579
carbuncle, [Howard] 991—ab
complications from sulfadiazine, [Wright & Kinsey] ★1351
complications from sulfonamides, [Monto] 1341—ab
complications from sulfonamides: "muddy urine" a danger sign, [Arnett] 68—C
damage, effect of dicoumarin, [Bollman & Preston] ★1023
damage, in endocarditis; recovery after intravenous sodium sulfadiazine, [Dick] ★24
Disease: See also Hydronephrosis; Pyonephrosis
disease, blood flow in, [Steinitz] 798—ab
disease, hypertension interrelation to arteriosclerosis and, [Scott] ★1
disease (unilateral): renal vascular changes in hypertension, [Friedman] 316—ab

KIDNEYS—Continued
disease, vitamin K treatment of nephrotic syndrome, 1262
excision cures renal hypertension, [Ratliff] 794—ab
excision (unilateral), indications; prognosis [O'Conor] ★579
experimental hypertension Goldblatt's therapeutic measures, [Dock] 147—C
extracts, effect on hypertension, [Page] ★761; ★762
function affected by sea water enemas, 165
function disturbance in pregnancy toxemia, [Dieckmann & Kramer] ★590; [Taylor] ★598
Glomeruli: See Nephritis, glomerular
Goormaghtigh cells in, [Kaufmann] 989—ab
hormones, research grant from Markle Foundation, 853
Inflammation: See Nephritis
insufficiency, "crush or compression syndrome," 1052
ischemia and pyrogenic reaction in hypertension, [Chasis] 237—ab
ischemia, produced by aortic aneurysm, [Hoffman] ★1028
mechanism of arterial hypertension, [Page] ★757
pathologic changes in hypertension and glomerulonephritis, [Simonds] ★89; (osmotic pressure of plasma proteins; glomeruli excretion of metallic poisons) [Zeisler] 786—C; (reply) [Simonds] 786—C
Pelvis: See Pyelonephritis
renal pressor system, 923—E
Surgery: See Kidneys, excision
tuberculosis, unilateral nephrectomy in, [O'Conor] ★580
KIM'S Rx. No. 26, 1243—BI
KIMBALL Laboratories, 1243—BI
KING'S COLLEGE, Nuffield endows chair of child health at, 710
KIRKLAND'S Disease, epidemic cervical adenitis, 996
KITCHEN Utensils: See Cooking and Eating Utensils
KNAPSACK, winged scapula in soldier from, [Ilfeld & Holder] ★448
KNEE: See also Patella
genu recurvatum after poliomyelitis; operative correction for hyperextension, [Irwin] ★277
injuries, apply Kenny principle, [Hart] ★900
intermittent hydrarthrosis, 578
KNIGHT, HARRY O., portrait, 61
KNIPE Shoes, 66—BI
KNOTT Technic: See Blood, ultraviolet irradiation
"KNUCKLE pads" and Dupuytren's contracture, 412
KOJIS, F. G., serum sickness and anaphylaxis in man, 536—E; [Engelsher] 1157—C
KRAUROSIS vulvae, diethylstilbestrol for, 801

L

LABHARDT, ALFRED, retires, 1153
LABOR: See also Abortion; Cesarean Section; Hospitals, maternity; Obstetrics; Puerperium
After-Pains: See Uterus contractions
bed rest (7 to 9 days) after; also exercise restrictions, 631; 801; 1147
Complications: See Eclampsia
dystocia dystrophia syndrome, [Williams] 1345—ab
hemorrhage and shock, transfusion for, [Sheehan] 158—ab
hemorrhage, control by compressing abdominal aorta; effect on spinal cord, [Strauss] 314—ab
menadione given mothers in, to prevent hemorrhage in newborn, [Parks] 988—ab
pregnandiol in urine determined by Venning's gravimetric method, [Hamblen] 988—ab
premature, and vitamin E, [Shute] 564—ab
premature, diethylstilbestrol for, [Karnaky] 866—ab
pulse and respiration as guide to cardiac failure in [Mendelson] 987—ab
use of morphine in primipara, 412
LABORATORIES: See also Crime detection; under names of specific laboratories as Abbott; Lederle; Squibb
clinical, in Chile, 857
clinical, technicians, A.M.A. modifies essentials of acceptable school, 972—OS
infection with lymphocytic choriomeningitis virus, [Milzer & Levinson] ★27
of electroencephalography at Stanford, 545
public health, New York City, 50th year, 463
radiologic, established at Columbia, 1050
LACTATE: See also Calcium lactate
Ringer's Solution, N.N.R., (Continental Hospital Lab.) 1127
LACTATION: See also Milk, human
cigaret smoking effect on, [Perlman & others] ★1003
mineral metabolic balances, [Macy] ★37; ★38; ★41
LACTOFLAVIN: See Riboflavin
LACTOSE prevents odor in Orr treatment of osteomyelitis, [Wallis & Dilworth] ★583
LADY Esther Face Powder, 308—BI
Lennox Hair Coloring, 308—BI
LAENNEC'S Cirrhosis: See Liver
LAGUARDIA, GERARDO, death, 637
LAHEY, FRANK H., testimony at Pepper hearings, 922—E; 927
LAHEY Clinic motion picture on peptic ulcer, 216
LALOR Foundation: See Foundations
LAMB, ROBERT E., testimony at Pepper hearings, 922—E; 927
LAMBLIASIS: See Giardia
LAME: See Crippled
LAMINECTOMY: See Spine
LAMPS: See Infra-Red Rays; Lighting
LANATOSIDE C, electrocardiography and clinical study, [Tandowsky] 1425—ab
LANE (John E.) Collection of prints at Yale, 461
LANGUAGE: See Terminology
LA-NU Hair and Scalp Vitalizer, 471—BI
LANZETTE, 391—BI
LAPHAM, MAXWELL E., testimony at Pepper hearings, 922—E; 927
LAPICQUE, LOUIS, arrested, 1409
LARVA Infestation: See Myiasis
LARYNGITIS, pulmonary tuberculosis masquerading as, [Donnelly] ★675
Tuberculous: See Larynx tuberculosis
unusual, and chondritis of arytenoid cartilage, 1080
LARYNGOLOGY: See also Otolaryngology
American Laryngological Association Casselberry awards, 1150
LARYNX, atypical changes in adolescence, [Greene] ★1193
pathways for pain from infected tooth, 656
stenosis, insert rubber section through tracheotomy wound for [Jesberg] ★1000
tuberculosis, utlraviolet ray therapy, (Council report) ★621; ★623
LASHES: See Eyelashes
LATEX, Junoform two-way stretch elastic hosiery, 204
LATIN AMERICAN: See also Inter-American
health program, 62
hospital institute (2nd), 976
radiologist on tour: Dr. Leonardo Guzmán, 1406
12 physicians start tropical medicine course at Tulane, 631
LAWS AND LEGISLATION, A. M. A. Bureau of Legal Medicine and Legislation: See American Medical Association
Argentine laws on venereal disease prevention; abolition of prostitution, 303
California basic science act defeated, 1405—OS
disability insurance and hospital benefits: H. R. 7534 (Eliot bill) (Bureau report) 296—OS
federal aid for maternity care for wives of service men; Barkley bill, 47—E
federal and state, (weekly summary) 58—OS; 212—OS; 379—OS; 460—OS; 544—OS; 628—OS; 706—OS; 1047—OS; 1235—OS; 1325—OS
medical care for recipients under Social Security Act, 706—OS
Soldiers' and Sailors' Civil Relief Act Amendments, (Bureau report) 539
U. S. Supreme Court asked to declare unconstitutional contraceptive laws, 854
Violation of: See Medical Jurisprudence; Medicolegal Abstracts
Workmen's Compensation: See Workmen's Compensation
LAWSON, W. T., 93rd birthday, 707
LAXATIVES: See Cathartics
LEAD arsenate poisoning in farmer, thiosulphate and vitamins cure, [Kilgore & Rhoads] ★1125
poisoning, danger from pipe connection of water main and home: Chicago code, 995
poisoning; gingival lead line, [Schour & Sarnat] ★1200
LEASES, liability of those in armed forces, (Bureau report) 539
LEATHER, sensitivity to: blisters on feet, 86
LECTURES
Alvarenga, 633
Bacon, 973
Barnard Hospital Lecture, [Murphy] ★107; 1148
Belfield (William T.), 1048
Bell, 1237
Bernard (Nathalie Gray) Lectureship established, 135
Billings (Frank), [Pratt] ★175
Chadwick, 1409
Chapin (Charles V.) oration, Rhode Island Medical Society establishes, 216
Fenger (Christian): changing concepts in pathology, 375—E
Friedman lectures, 545
Gilchrist: wider clinical study of disease by Prof. Ryle, 1151
Graduate: See Education, Medical, graduate
Gross (Lewis), 301
Haggard, 1328
Harben, 1409
LECTURES—Continued
Harvey, (1st) 632; (2nd) 852; (on marihuana by Roger Adams) 1128—E; (3rd) 1237
Helmholz, 1150
Jackson, 462
Lower, 776
Mütter, 1149
New York Academy of Medicine, (for public) 708; (Friday afternoon) 974
Newbold (Mary Scott), 1408
Niles (Walter L.) Memorial, 852
Packard Memorial, 1050
Pancoast, 975
Porter, 973
public, Brooklyn, 852
Rachford, 633
Salmon, 546
Sigma Xi, 854
Terry, (1st) 1049
LEDERLE Laboratories, Inc., (motion picture on immunization available) 136; (Dr. H. R. Cox goes to) 974
LEDYARD Fellowship: See Fellowships
LEG: See Legs
LEGAL Medicine: See Laws and Legislation; Medical Jurisprudence; Medicolegal Abstracts at end of letter M
Responsibility: See Malpractice
LEGISLATION: See Laws and Legislation
LEGS: See also Ankle; Femur; Foot; Hosiery; Knee
Amputation of: See Amputation
hair (excessive) on; shaving, depilatory or bleaching for, 727
Milk Leg: See Phlegmasia alba dolens
painting, in place of silk harmful? 410
purpura (possible), 656
swollen, Junoform two-way stretch elastic hosiery, 204
veins of, diagnosis of valvular insufficiency, new method [López Esnaurrizar] 723—ab
LEGUMES, nutritive value, [Wilder & Keys] ★533; [Maynard] ★694
LENGGENHAGER, K., appointment, 1153
LENROOT, KATHERINE F., statement on child welfare services in defense communities, 47—E
LENS, CRYSTALLINE, opacity: See Cataract
LENTILS, nutritive value, [Wilder & Keys] ★534
LENTINO, AQUILES S., first scholarship of Arce Foundation to, 854
LEPROSY, leprosariums built in Brazil, 140
problem, Mexico, 219
sterilization of lepers, Brazil, 1053
transmission by ticks, 1053
with acute onset, [Fonso Gandolfo] 243—ab
LEPTOMENINGITIS, cerebrospinal, chronic tuberculous, [Schmidt] 243—ab
LEPTOSPIRA icterohemorrhagiae Infection: See Jaundice, spirochetal
LEPTOSPIROSIS in New York City, [Tiffany] 1426—ab
LETTUCE, nutritive value, [Maynard] ★695
LEUKEMIA, chronic, symptoms, life duration; prognosis, [Pascucci] 402—ab
throat and nose sign, 1152
LEUKOCYTES: See also Eosinophils (cross reference); Mononucleosis, infectious
Count: See also Agranulocytosis, Acute; Granulocytopenia; Leukemia
count, leukopenia after sulfathiazole treatment in children, [Herlitz] 321—ab
count, leukopenia from taking Dr. James' Headache Powders, [Austin] ★911
count, leukopenia in x-ray workers, 548
peroxidase action on, in acute infections, [Möllerström] 487—ab
phagocytosis by, [Reed] 405—ab
picture and insulin shock in allergic patients, [Rausch] 653—ab
polymorphonuclears and, in sternum marrow samples, [Reich] 1427—ab
sulfonamides effect on in rabbits, [Lindelöf] 487—ab
LEUKOPENIA: See Leukocytes, count
LEUKOPLAKIA: See also Kraurosis vulvae
oral, relation to diet deficiency, [Abels] 74—ab
LEUKOPHLEGMASIA: See Phlegmasia alba
LEUKORRHEA associated with ovulation, 802
LEVINE-State intradermal test to predict reaction to human plasma, 206—E; ★275; [Metzger] 714—C; [Sophian] 860—C
LEWISITE, precautions against civilian gas attacks; antigas ointment, England, 218
LEYDIGISM, new syndrome, 1400—E
LIABILITY: See also Malpractice
for debts etc. of those in armed forces (Bureau report), 539
LIBEL AND SLANDER: See Medicolegal Abstracts at end of letter M
LIBRARY: See also Books; Journals; Newspapers
Ballard (J. F.) 50 years a medical librarian, 626—E
Medical Library Association (elects officers), 216
Worcester Medical, moves, 1049
LICE, body, transmit relapsing fever, [Robinson] 1070—ab
LICENSE: See Automobiles; Licensure

LICENSURE: See also Medical Practice Acts; State Board Reports
for "dislocated" physicians, 925—E; [Paullin] ★1224; (discussion) 1232—ab; 1308—E; 1401—E
Hester (R. D.) fined for practicing without license, 851
legislative committee to study, Va., 61
registration (annual) required, D. C., 707
LICHEN planus, (reply) [Kile] 492
LIE Detectors: See Medicolegal Abstracts at end of letter M
LIFE: See also Death
Duration: See Old Age
Insurance: See Insurance
Lite, 785—BI
LIGATURE: See Suture
LIGHT: See also Lighting; Photosynthesis
Adaptation to: See Eyes, accommodation
sensitivity of sulfonamides, [Park] 1435—ab
LIGHTING, fluorescent and Mazda combined, 412
LIGHTNING: See under Electric
Pains: See Tabes Dorsalis
LILJENCRANTZ, ERIC, death: portrait, 980
LIME Burns: See Calcium oxide
LINDE Oxygen Therapy Regulator, 535
LINDLEY, ERNEST, tribute to physicians, in Chicago *Sun* 699—E
LIP: See Lips
LIPIDS: See Fat; Oil
LIPODYSTROPHY, intestinal, or Whipple's disease, [Pearse] 81—ab
LIPS cancer, irradiation for, [Schreiner] 1342—ab
lesions of industrial origin, [Schour & Sarnat] ★1197
LIPSTICK: See under Cosmetics
LIQUOR: See Alcohol
LITERATURE: See Articles; Books; Journals; Library; Newspapers; Terminology
LITHIASIS: See Calculi (cross reference)
LITHIUM Antimoniothiomalate: See Lymphogranuloma, Venereal
LITTAUER (Lucius N.) professorship of psychiatry, 632
LIVER: See also Biliary Tract
antimenorrhagic factor, "glanules," [Sutherland] 484—ab
atrophy (acute yellow) fatal in newborn; mother given sulfonamides, [Ginzler] 232—ab
biopsy in juvenile intermittent icterus (cholemia), [Krarup] 320—ab
carbon dioxide utilization by, 454—E
Carter's Little Liver Pills activate bile flow? 1219—E
cirrhosis after massive esophagus hemorrhage, [Grace] 1163—ab
cirrhosis, amino acids parenterally for, [Fagin] 650—ab
cirrhosis, flatulence precedes ascites in, [Mannheimer] 553—C
cirrhosis, Laënnec's, [Ratnoff] 1253—ab
cirrhosis, role of protein diet and vitamin B complex deficiency, 624—E; [György & Goldblatt] 1157—C
damage, relation to dicoumarin, [Wright & Prandoni] ★1018; [Bollman & Preston] ★1023
disease, colloidal gold reaction of blood serum in diagnosis [Lavin] 653—ab
disease, plasma prothrombin and vitamin K, [Bechgaard] 571—ab
Disorders: See also Jaundice
disorders, workers absenteeism due to, relation to holidays, [McGee & Creger] ★1367
extracts plus vitamin B complex for celiac disease, [May] 1066—ab
hemoglobin production factors in, [Whipple] 863—ab
inflammation, bismuth hepatitis at San Quentin prison, [Kulchar & Reynolds] ★343
inflammation, sulfanilamide in portal vein vs. systemic circulation, [Pearce] 982—C
lesion of parenchyma in heart disease, citric acid in blood as sign, [Somolinos] 486—ab
Necrosis: See Liver, atrophy (acute yellow)
solution in 5, 10, 2.5 USP units, N.N.R. (Breon), 373
vitamin A deficiency effect on, [Butt] ★1032
wounds, gunshot, [Countryman] 1341—ab
LIVERINE, 225—BI
LIVING: See Life
Conditions: See Housing; Social conditions
LOANS: See Students, Medical
LOBECTOMY: See Lungs, surgery
LOBOTOMY: See Brain
LOCKJAW: See Tetanus
LOCOMOTOR Ataxia: See Tabes Dorsalis
LONG ISLAND College of Medicine (course on industrial medicine) 300; (tuition fee reduced in course on industrial medicine) 632
LONGEVITY: See Old Age
LOTION: See Skin lotion
LOUGHNEY'S (Dr. A. M.) Dependable Guide; Anti-Spasthma-Oyl and Bowelkleen, 640—BI
LOUISE NORRIS: See Norris
LOUSE: See Lice
LOWER, WILLIAM, summed up medical experiences of last war, [Dickson] ★413
LOWER Lecture: See Lectures
LOYOLA University, (course in industrial medicine), 631
LUBRICATING jelly, MacKenzie's formula 847; 1134
LUCKIE, Mary, Hair Tints, 471—BI
LUCKY Heart Products, 308—BI
LUDWIG'S Angina: See Mouth, cellulitis of floor of
LUKENS, F. D. W., quotation on diabetes, [Joslin] 860—C
LUMBAR Puncture: See Spinal Puncture
LUMINAL: See Phenobarbital
LUNCHES: See Food; School lunches
LUNGS: See also Arteries, pulmonary; Pleura; Respiratory System
Abscess: See also Lungs, suppuration
abscess, treatment, medical vs. surgical, [Sanger] 795—ab
air screw injuries in aircraft apprentice, [Howkins] 570—ab
calcified nodules and coccidioidomycosis, [Aronson] 234—ab
calcium deposits in parenchyma, diagnostic value, 324
cancer, in infant, [Hauser] 402—ab
cancer, metastatic from prostate, [Alyea & Henderson] ★1101
cancer (primary) involving bronchus, [Overholt] 864—ab
coccidioidomycosis, x-ray study, [Aronson] 234—ab; [Winn] 1061—ab
Collapse: See also Pneumothorax
collapse, after pneumonia in children, [Wyatt] 151—ab
collapse, atelectasis, complicating primary tuberculosis, [Jones] 1429—ab
collapse, postoperative atelectasis; clinical aspects; prevention, [Schmidt & others] ★895
collapse, reflex atelectasis; use of atropine or atropine papaverine, [de Takats] ★686; (suggest atropine with potassium iodide), [Schulman] 1157—C
complications after major operations in asthma, [Gaarde & others] ★432
complications of one stage abdominoperineal rectal resection, [Jones] ★104
Disease: See also Bronchopneumonia; Influenza; Pneumonia; Pneumonoconiosis
disease (chronic), session on, N. Y., 852
disease, common masquerading, [Overholt] 864—ab
Embolism of the Pulmonary Artery: See Embolism, pulmonary
Fibrosis: See Pneumonoconiosis
function, pneumonectomy effect on, [Cournand] 1339—ab
fungous infection, x-ray diagnosis; especially coccidioidomycosis, [Carter] 80—ab
Hemorrhage: See also Hemoptysis
hemorrhage of nontuberculous origin, [Jackson] 565—ab
infection of lower lobe with Trichomonas buccalis, [Glaubach & Guller] ★280
"Iron Lung": See Respirators; Resuscitation
roentgen signs of toxoplasmosis, [Sante] 151—ab
roentgen study, transient shadows, [Matte] 797—ab
Suppuration: See also Lungs, abscess
suppuration, sulfanilamide by transthoracic injection for, 857
surgery, lobectomy and pneumonectomy, lung size after, [Husfeldt] 1166—ab
surgery, lobectomy in bronchiectasis, [Wishart] ★1181
surgery, pneumonectomy effect on cardiopulmonary function, [Cournand] 1339—ab
surgery, pneumonectomy in bronchiectasis, [Blades] 1344—ab
Tuberculosis of: See Tuberculosis, Pulmonary
Vital Capacity: See Vital Capacity
LURIA, ALEXANDER R., requests reprints for Russian physicians, [Razran] 226—C
LUST, BENEDICT, books on healing and fasting, 471—BI
LUVOS Pack and Luvos Minerals, 66—BI
LUX Hair Dye (or Lux Hair Coloring) 391—BI
LYMPH drainage obstruction cause of enlarged right arm, 995
leakage, continuous, operative injury of thoracic duct, 491
LYMPHADENITIS: See Lymphatic System
LYMPHATIC SYSTEM: See also Lymph; Lympho—; Mononucleosis, infectious; Thoracic Duct
anal infection, [Nesselrod] 481—ab
cervical adenitis (epidemic): Kirkland's disease, 996
giant follicular hyperplasia of nodes, [Jahsman] ★1126
mediastinal adenitis: pain in chest, [Harrison] ★521
LYMPHATIC SYSTEM—Continued
mesenteric adenitis relation to acute juvenile intussusception, [Avent] 481—ab
regional adenitis, [Orton] ★875
suppurative adenitis from tularemia, 578
tuberculous adenitis at angle of jaw, roentgen therapy, 167
tuberculous adenitis, hemorrhagic reaction to purified protein derivative, [Urbach] 1430—ab
tuberculous mesenteric nodes in adults; grave tumoral forms, [Calvo Melendro] 1074—ab
tumor, edema and continuous leakage of lymph after removal, 491
LYMPHEDEMA after sprained ankle, 728; (reply: thrombophlebitis) [Fine & Starr] 1262
LYMPHOBLASTOMA, follicular, [Jahsman] ★1126
LYMPHOCYTES: See Choriomeningitis, lymphocytic
LYMPHOGRANULOMA, VENEREAL, diagnosis, yolk sac virus antigen for, [Axelrod] 152—ab
erythema nodosum in, [Hellerström] 798—ab
rectal, stricture due to sodium sulfanilyl sulfanilate for, [Levy] 231—ab
treatment, anthiomaline (lithium antimoniothiomalate), [Shaffer] 152—ab
virus, meningoencephalitis caused by, [Sabin & Aring] ★1376
LYMPHOGRANULOMATOSIS: See Hodgkin's Disease
Benign (Schaumann): See Sarcoidosis
LYMPHOMA: See Adenolymphoma
LYMPHOSARCOMA, primary, of bladder, [Kreutzmann] 795—ab

M

M Agglutinogen: See Antibodies
MD Degree: See Degrees
Medicated Douche Powder, 641—BI
McCLOSKEY, JAMES A., memorial services, 776
McINTIRE, ROSS T., again Surgeon General; number of physicians needed for our fighting men, 1133
McK. Edwards Eczema Remedy, 641—BI
MACKENZIE, D. E., develops formula for noninjurious lubricating jelly, 847; 1134
McKENZIE'S (Dr.) Sanitary Health Sox, 470—BI
MACULA LUTEA, cortical representation, [Putnam] 1062—ab
MACY Foundation: See Foundations
MADAME: Trade names beginning with: See under surname concerned
MAGAZINES: See Journals
MAGGOTS: See Myiasis
MAGNESIA S. Pellegrino, 640—BI
MAGNESIUM metabolic balances; intake; retention [Macy] ★38
MAGNET, to remove metallic foreign bodies from eyeball and orbit, [Spaeth] ★659
MAGOLO, Forni's, 470—BI
MAHDEEN, 391—BI
MAICO Audiometer, 205
Hearing Aid, 839
MAIER, H. W., resigns, 1153
MAJON-Gabastou Method: See Placenta, retained
MAKASAR Wonderful Pomade, 1334—BI
MALAR BONE, pressure on: test for reversible headache, [Scott] 156—ab
MALARIA, blood banks in Palestine, 64
control, Army's fight from 1776-date, [Simmons] ★30
control, (Bolivia) 711; (Rockefeller Institute fund aids) 778
control, in the tropics, [Dreisbach] ★1192
control, sluicing streams as emergency measure in Malaya, 63
diagnosis: complement fixation, [Dulaney] 399—ab
epidemic, India, 778
in infant of 3 months, [Reisman] 1068—ab
in the Americas discussed at Pan American Sanitary Conference, 1411
prevention, chemotherapy, [Martini] 243—ab
problem, National Research Council and War Production Board solution, 1043
treatment, atabrine, American vs. German, 842—E
treatment, atabrine, plasmochin, quinine substitutes, Christophers discusses, 385
treatment, atabrine, U.S. Army places record order; cost of atabrine vs. quinine, 459
treatment, certuna, plasmochin, atabrine, quinine, [Aguilar Meza] 320—ab
treatment, quinine substitute; totaquine, atabrine and plasmochin, National Research Council recommendation, 1043
MALE: See Eunuchoidism; Spermatozoa
Hormones: See Androgens
MALFORMATIONS: See Abnormalities (cross reference)
MALIGNANCIES: See Cancer; Sarcoma; etc.
MALINTZIN, 308—BI
MALNUTRITION: See Nutrition

MALPRACTICE: See also Medicolegal Abstracts at end of letter M
fatal mistake from confusing procaine and percaine, 780
suits and Farm Security Administration, medical service plans, [Taylor] 1317—ab
MALTA FEVER: See Brucellosis
MAMMARY: See Breast
MAMMOGRAPHY: See Breast roentgen study
MANDIBLE: See Jaws
MANGANESE, element in nutrition, [Shils & McCollum] ★609
MANITOBA Medical Association sickness insurance plan, 773—OS
MANPOWER, additional American fighters, 58—OS; 380—OS
medical, Pepper hearings on, 766—E; 840—E; 922—E; 927; (Senator Millikin speaks in behalf of A. M. A.) 1042—E; (reply) [O'Brien] 1414—C; 1401—E
medical, problems of; enormous self-sacrifice of physicians, 1308—E
MANTHO-KREOAMO—M-K, 66—BI
MAPHARSEN infusion via marrow, pulmonary fat embolism after, [Wile] 794—ab
treatment, intravenous massive doses in juvenile congenital and acquired syphilis, [Levin & others] ★1373
treatment (massive), cerebral reactions to, [Thomas] 1247—ab
treatment, 10 day syringe method in early syphilis, [Schoch] 153—ab
MARCH Fracture: See Metatarsus
MARCHING, blisters on feet and composition of shoes, 86
MARFAN'S Syndrome: See Arachnodactyly
MARIHUANA: See Cannabis
MARKLE Foundation: See Foundations
MARMOLA, misleading advertising, 1060—MI
MARQUETTE University discontinues 5th year, 383
MARRIAGE: See also Birth Control; Families; Maternity; Pregnancy; Medicolegal Abstracts at end of letter M
cause of death in partners, [Ciocco] 1069—ab
nurses to continue on active duty after, 704
of epileptic or his relatives; heredity of brain waves, [Lennox] ★450
MARROW: See Bone Marrow
MARTYRS: See Heroes
MARY LUCKIE: See Luckie
MARYLAND, Industrial Accident Commission of, and occupational diseases, 626—E
MASCARA, Camille's, 307—BI
Ronni, 641—BI
MASKS, Allergy Electric, 146—BI
physicians' cars equipped with Army blackout lighting devices, 248
rubber dermatitis from wearing, 127—E; [Petro] 157—ab
skin irritation from anesthetic or, 249
MASSACHUSETTS: See also Boston
Medical Service, [McCann] ★1318
Medico-Legal Society seminar in legal medicine at Harvard, 136
MASTER 2-Step Test: See Exercise
MASTITIS: See Breast
MASTOID, bacteria culture in otitis and mastoiditis, [DeSanctis & others] ★1089; ★1091
cells infection, Bezold's abscess, [Orton] ★875
screw worms infestation, chloroform treatment, [Turnbull & Franklin] ★117
MASTOIDECTOMY, bilateral, in torula meningoencephalitis, [Marshall & Teed] ★527
MASTOIDITIS, survey; sulfonamide treatment, [DeSanctis & others] ★1087; ★1092
MASTURBATION at high school age, 411
MATAS Test: See Brain circulation
MATERNITY: See also Families; Pregnancy
care for wives of service men, (federal aid, Barkley Bill) 47—E; (state aid, Family Security Bulletin No. 27 from U. S. Children's Bureau) 846; (Missouri) 974
Hospitals: See Hospitals
industrial employment of mothers, care for children under Lanham Act, Conn., 298
industrial employment of mothers, standards for, before and after pregnancy, 55
industrial employment of Scranton mothers in war industries, 215; (correction) 634
mortality at Johns Hopkins Hospital, 1896-1941, [Eastman & Whitridge] ★729
mortality, frequency of abortion and its effect on, 538—E
war effect on, England, 465
welfare, teaching day, N.Y., 775
MAXILLA: See Jaws
MAXILLARY SINUS, fracture, [Shea] ★746
MAXILLARY SINUSITIS, chronic, surgical treatment, Caldwell-Luc operation, 86
MAYER (Charles L.) Awards: See Prizes
MAYO Foundation: See Foundations
MEAD Johnson Awards for research in pediatrics, winners of, 1328
vitamin B research award; nominations open, 547
MEALS: See under Food
MEASLES, bronchopneumonia due to; mortality, [Bazán] 571—ab
treatment, sulfathiazole, [Gibel] 1066—ab
MEAT: See also Trichinosis
dehydrated, effect on vitamin content, [Kohman] ★837; 855
nutritive values, [Wilder & Keys] ★531
raw, protein deficiency, 455—E
situation, France, 848
MEBARAL (prominal) for epilepsy, [Cohen] 1068—ab
MECHOLYL chloride, action on intestinal motility, [Puestow] ★906
effect on electrocardiogram (T waves), [Hartwell] 237—ab
MECKEL'S Diverticulum: See Intestines, diverticulum
MEDALS: See Prizes
MEDIASTINITIS after deep infection in neck, [Orton] ★878
MEDIASTINOTOMY, cervical, technic, [Orton] ★878
MEDIASTINUM, Lymphadenitis: See Lymphatic System
MEDICAL ADMINISTRATIVE Corps: See Medicine and the War
MEDICAL AND SURGICAL RELIEF COMMITTEE OF AMERICA, 210; 1403
auto identification plates for use in blackouts, 136
women physicians raise $2,000 for relief fund for, 129
women's auxiliaries aid, 130
MEDICAL ARTICLES: See Articles
MEDICAL ASSOCIATION: See American; Association; Societies, Medical; list of societies at end of letter S
MEDICAL AWARDS: See Prizes
MEDICAL BOOKS: See Books; Library; Book Notices at end of letter B
MEDICAL CARE: See Medical Service
MEDICAL CENTER: See Health Center
MEDICAL CLUB of Philadelphia, 50th year, 1050
MEDICAL COLLEGE: See Schools, Medical; University
MEDICAL CORPS: See Army; Medicine and the War; Navy; World War II
MEDICAL-DENTAL Meeting: See Dentistry
MEDICAL DIRECTORY: See American Medical Directory; Directory
MEDICAL ECONOMICS: See Economics, Medical (cross reference)
MEDICAL EDITORS, Annual Conference of: See American Medical Association Annual Conference
MEDICAL EDUCATION: See Education, Medical
MEDICAL EQUIPMENT: See Medical Supplies
MEDICAL EXAMINATION: See Physical Examination
MEDICAL EXAMINERS: See Coroners
MEDICAL FEES: See Fees
MEDICAL HISTORY: See Medicine, history
MEDICAL ILLUSTRATION: See Art
MEDICAL INSTITUTE: See Institute
MEDICAL JOURNALS: See Journals
MEDICAL JURISPRUDENCE: See also Laws and Legislation; Malpractice; Medicolegal Abstracts at end of letter M
alien Japanese physician sentenced for abortion, Ariz., 851
Baker (Norman) denied Supreme Court review, 1147
bullet wounds of pulmonary vessels and speed of death, 1080
court's cooperation in ambulatory treatment of chronic alcoholism, [Miller] ★271
legal aspects of insemination, [Guttmacher] ★445
legal medicine seminar at Harvard, 136
physiology of drowning, 871
U. S. Supreme Court asked to declare unconstitutional contraceptive legislation, 854
U.S. Supreme Court to review practice of medicine under Sherman Act, 624—E
MEDICAL LEGISLATION: See Laws and Legislation
MEDICAL LIBRARY: See Library
MEDICAL LICENSURE: See Licensure
MEDICAL LITERATURE: See Literature (cross reference)
MEDICAL MANPOWER: See Manpower
MEDICAL MUSEUM: See Museum
MEDICAL OFFICERS: See Army; Medicine and the War; Navy; World War
MEDICAL PERIODICALS: See Journals
MEDICAL PILOTS: See Aviation; Medicine and the War
MEDICAL PLANNING, British Medical Association report, 139; 217; 460—OS; 1312—E; 1410
MEDICAL PRACTICE: See Physicians, practicing
MEDICAL PRACTICE ACTS: See also Licensure; Medicolegal Abstracts at end of letter M
California basic science act defeated, 1405—OS
MEDICAL PREPAREDNESS: See Medicine and the War
MEDICAL PRIZES: See Prizes
MEDICAL PROFESSION: See Medicine, profession of; Physicians; Surgeons
MEDICAL RESEARCH: See also Research
Council, committee report on tuberculosis treatment, 1239
Council gift from Wellcome estate for drying of plasma and serum research, 218
Council report on "Personal Factor in Accidents"; increase in industrial accidents, 841—E; 856
MEDICAL RESERVE CORPS: See Medicine and the War
MEDICAL RESPONSIBILITY: See Malpractice
MEDICAL SCHOOLS: See Schools, Medical
MEDICAL SCIENCE: See Medicine; Research; Science
MEDICAL SERVICE: See also Health; Hospitals, service; Insurance, health
British Medical Association postwar planning committee, 139; 271; 460—OS; 1312—E; 1410
by state agencies, 1325—OS
community doctor service by Canadian Red Cross Society, 778
contracts claim adjuster: Mr. Mendoza, 777
Emergency Medical Service: See Emergency
for recipients of public assistance under Social Security Act, 706—OS
for shipyard workers, Oregon plan, [Fitzgibbon] 1139—ab; [Diehl] 1233—ab
for the aged, [Thewlis] ★749
German fuehrer's decree on, 848; 855
improved, lives saved for defense because of Metropolitan's statement, 380—OS
Industrial: See Industrial Health
outlook in Australia, 1405—OS
Plans: See also Hospitals, expense insurance
plans: Cleveland; Academy of Medicine states position on, 1328
plans: Farm Security Administration, [Simons] ★1315
plans for wives and infants of service men, 47—E; 846; (Missouri) 974
plans: Massachusetts Medical Service and others, [McCann] ★1318
plans: medical society, criticism by Lewis H. Pink, 379—OS
plans: Michigan, [Haughey] 1321—ab
plans: New Jersey Medical-Surgical Plan, [Scott] 1323—ab
plans: Oregon Physicians' Service, (Oregon Medical Service Association merges with) 975; [Fitzgibbon] 1139—ab
plans: officials of, A. M. A. conference advocated, [Schwitalla] 1322—ab; [Kress] 1323—ab
plans: Pennsylvania Medical Service Association, [Perry] 1323—ab
plans to meet need for, where shortage of physicians, 458
rural, and tire rationing, [Taylor] 1234—ab; [West] 1235—ab
study of, by new committee, 775
Supply of Physicians for: See Physicians, supply
MEDICAL SOCIETY: See Societies, Medical
MEDICAL STUDENTS: See Students, Medical
MEDICAL SUPPLIES: See also Apparatus; Drugs; Equipment; Instruments; Splints
Army and Navy E awarded to Bauer & Black, 301
conservation of, Medical Division Memorandum no. 16 of OCD, 130
for battalion aid station, 1045
Medical and Surgical Relief Committee of America: See Medical and Surgical Relief Committee
MEDICAL TECHNICIANS: See Laboratories; Technicians
MEDICAL TERMINOLOGY: See Terminology
MEDICAL WOMEN: See Physicians, women
MEDICAL WRITING: See Articles
MEDICALLY HANDICAPPED: See Crippled; Handicapped
MEDICINE: See also Education, Medical; Medical Service; Physicians; Surgeons
Academy of: See Academy
American, has met its military obligations, [Rowntree] ★1227
Aviation: See Aviation
Congress of: See Congress
Cults: See Chiropractors
Dental: See under Dentistry
Exhibits: See Exhibits
Fellowships: See Fellowships
Forensic: See Medical Jurisprudence
History: See also Surgery history
history, *Annals of Medical History* to be suspended, 709
history, Army's fight against malaria (1776-date), [Simmons] ★30
history, Bureau of Medicine and Surgery of U. S. Navy, 100th year, 46—E
history, past presidents of West Virginia State Association 1867-1942, 136
history, stomach disorders in armies of early times, [Goldstein] 261—ab
Industrial: See Industrial Health
Institute of: See Institute
Internal: See Internal Medicine
Lectures: See Lectures
Legal: See Legal Medicine (cross reference)
Military: See Medicine and the War; Military; World War

MEDICINE—Continued
Organized: See American Medical Association; Societies, Medical
Physical: See Physical Medicine; Physical Therapy
Practice: See also Licensure; Malpractice; Physicians, practicing
practice in Australia, 1405—OS
Preventive: See Preventive Medicine
Prizes in: See Prizes
Profession of: See also Physicians; Surgeons; etc.
profession of, and national leadership, [Swaim] 982—C
profession of, and victory tax (Bureau report), 1143—OS
Psychosomatic: See Psychosomatic Medicine
Research in: See Research
rising generation in: Sir Beckwith Whitehouse, 754—ab; [Gimbel] 1336—C
Scholarships: See Scholarships
Social: See also Insurance, health; Medicine, state
social, Argentine Congress of (2nd) Buenos Aires, 857
social, Institute of, endowed at Oxford by Nord Nuffield, 137; 218
Societies: See Societies, Medical
state, [McIntire] ★1137
state agencies, medical and dental care by, 1325—OS
state, British Medical Association rejects, 217; 1312—E; 1410
state, federal aid for maternity care for wives of service men, 47—E; 846
Tropical: See Tropical Medicine
Veterinary: See Veterinarians
Women in: See Nurses; Physicians, women
MEDICINE AND THE WAR: See also World War II
agar, conservation by WPB; use psyllium instead, 295
air raid shelters in buildings, 970
ambulance corps, florists form, Philadelphia, 210
ambulance pool, Youngstown's, 131
ambulance units, revised instructions, 1222
A. M. A. and Procurement and Assignment Service, [Paullin] ★1224
A. M. A. San Francisco 1943 session called off, 290—E
A. M. A. War Participation Committee, (medical and dental care plan) 628—OS; (functions of) [Donaldson] ★1231
anesthesiologist in Army, [Martin] ★843
Armstrong (George E.) promoted, 770
aviation, address by General Grant, 1317
aviation, flight surgeons' assistants, 1221
aviation medical examiners at School of Aviation Medicine, 211; 295
aviation physiologists, 377; 541; 1045; 1133
aviators, otolaryngologic problems in, [Carson] ★4; 1309—E
Baehr (George) visits England, 543
Bauer & Black, Army and Navy E to, 301
blisters on feet of soldiers, 86
blood donor service of American Red Cross, 384; 627
blood plasma, federal aid to hospitals to build up reserve, 209
blood plasma prepared for civilian defense used in Boston disaster, 1223
blood procurement for armed forces by American Red Cross, [Taylor] ★119; 727
blood, standard Army-Navy package of serum albumin human (concentrated), 1041—E
Bunker (Charles W. O.), new head of Naval Medical Center, 378
Camp Barkeley, medical training center at buys defense bonds, 770
Carlisle Barracks, (largest class graduates) 131; (medical officers for new divisions) 132; (enlisted men commissioned to relieve physicians from administrative work) 133; (800 officers graduate) 541; (Major General Biggs visits) 541; (special training course at Field Service School) 627
casualty units, revised instructions, 1222
Chemical Warfare: See also subhead: Gas Warfare
chemical warfare course, (3-day, New England) 133; (Baltimore) 210
chemical warfare demonstrations, Buffalo, 132
chemical warfare, medical aspects, Ind., 775
chemical warfare school, Pa., 541; 1044
chemical warfare service, 845
chemical warfare, teaching day at Syracuse U., 632
children, care of, committee to coordinate, New York, 852; 1327
civilian defense and industrial medical organizations, Council discusses, 43
civilian defense directives, change in terminology of, 1313
civilian defense insignia, specifications and use, 970
civilian defense instruction, 9 day course at Occidental College, 133
civilian defense, Mexico, 219
civilian defense staff members and first aid training, 846
civilian evacuation program, 771
MEDICINE AND THE WAR—Continued
color blindness in soldier; no known correction, 1080
coronary occlusion fatal in soldier, [Sterling] 1067—ab
Davis (Loyal) on duty in Surgeon General's office, 133
deferment of interns and residents for 1943-1944, 1220
dental officers (Navy) ordered to Mayo Foundation, 846
dentists in training to aid physicians, 543
dentists, institute on war medicine for, Chicago, 631
Diet: See subhead: Nutrition
digestive disease and military service, [Kantor] ★254
dogs, feeding, 849
Draftee: See subhead: Soldiers and recruits
Ebaugh (Franklin G.), to serve as psychiatric consultant, 378
emergency medical service, lectures on, Chicago, 851
Emergency Medical Service, (supplies for units) 772; (revised instructions for field casualty and ambulance units) 1222
emergency medical services, equipment for, 209
emergency medical services, "Fighters in White": movie which shows, 210; 1148
emergency mortuary services; OCD Bulletin 5, 542
encephalitis (acute epidemic), at Fort Sam Houston, [Woodland & Smith] ★358
epidemics and shifts in wartime population, 767—E
epidermolysis bullosa in soldier, [Mansur] ★1122
first aid neighborhood dressing stations in Delaware, 210
Food: See also subhead: Nutrition
food and drug officials organize for emergencies, 709
fuel rationing, health aspects of, (Dr. Bristol's subcommittee report) ★370; 376—E; 456—E; [Dean] 472—C; (N. Y.) 708
gas officers' institute in Detroit, 130
Gas Warfare: See also subhead: Chemical Warfare
gas warfare courses, (Little Rock) 132; (at Ohio State) 853
gas warfare, precautions against attacks on civilians; antigas ointment, 218
gasoline and tire rationing, physicians part in, 700—E; [Richards] 701
gasoline rationing eligibility for "C" book, 772
Gonorrhea: See subhead: Venereal Disease
Graham (Robert H.) goes to Procurement and Assignment Service, 215
Halloran (R. D.) assignment to Surgeon General's Office, 57; (correction) 217
Hawley (Paul R.), in England, 541
Health for Victory Conference, Mich., 1407
health of our nation in wartime, [Parran] ★1224
health (public) resolution adopted by Pan American Sanitary Conference, 978
Health Safety and Technical Supplies Branch, 459
heart murmurs in candidates for naval aviation, [Mitchell] 404—ab
Hospital: See also under other subheads
hospital administrators, memorandum on essential positions, 56; (appeals procedure) 1132
hospital (Army), Greenbrier Hotel converted into, 1045
hospital (Army), management of digestive diseases, [Kantor] ★257
hospital, Bushnell General Hospital, 1402
hospital, Chicago Beach Hotel to become for air force, 770
hospital, Chicago group from St. Luke's, on active duty, 131
hospital, convert carriage house into, 133
hospital, emergency base, 57; 542; (Durham, N. C.) 970; [Parran] ★1225
hospital emergency base establishment in interior of all coastal states, 704
hospital (Navy) in Panama, 627
hospital, Oakland, reimburse for care of civilian air casualties, 131
hospital, Percy Jones General, formerly Battle Creek Sanitarium, 1220
hospital, Rhode Island, volunteer service at, 1408
hospital, Roger Brooke Hospital, 1402
hospital unit, [Hillman] 1142—ab
hospital unit, Colorado Hospital unit activated, 1221
hospital unit, Duke, goes on active duty, 132
hospital unit, Emory U. activated, 542
hospital unit in U. S. P. H. S. provisions for civilians, A. M. A. approves 629—OS
hospital unit, Mount Sinai receives World War I flag, 130
hospital unit, New York City, 8 on active duty, 1221
hospital unit, North Carolina evacuation hospital in training, 770
hospital unit, Pueblo's, activated, 1045
hospital unit, Rochester (N.Y.) General, 1402
hospital unit, St. Mary's, W. Va., 704
MEDICINE AND THE WAR—Continued
hospital unit, Tulane Medical activated, 133
hospital unit, U. of Illinois to go on active duty, 542
hospital unit, U. of Oregon, flag from World War I presented to, 132
hospital unit, Vanderbilt U. activated, 459
hospital unit, Yale mobilized, 131
housing, health problems, [Freedman] ★9
Hubbard (Dr.), father and 3 sons in service, 541
identification tags to be carried by civilians, 542
induction boards, why men first rejected; then later called up (various authors) 1142—ab; 1143—ab
industrial defense plants, Scranton mothers in, 215; (correction) 634
industrial dermatoses, courses in, 971
industrial, emergency medical service in war department plants; OCD memorandum, 131; 1313
industrial health, Council discusses, 43
industrial hygiene area units organized, St. Louis, 545
industrial physicians, criteria for determination of those essential, 56
Industrial plants, physicians willing to go into, 210
industrial safety and hygiene conference at Cincinnati, Sept. 17-18, 294
industrial shipyard workers, keratoconjunctivitis in, 538—E; (sulfathiazole cures) [Walter] 1157—C
industrial shipyard workers, medical service for, (Kaiser testimony) 944; [Fitzgibbon] 1139—ab
industrial workers, excessive use of sugar and carbonated beverage by (Council report) 765
industrial workers, loss of time from gastrointestinal upsets; relation of holidays [McGee & Creger] ★1367
industrial workers, metabolic disorders from dinitrotoluene exposure, [McGee] 1426—ab
industrial workers, skin trauma in, [Downing] 1433—ab
industrial working conditions and fatigue, 698—E
Interns: See subhead: Medical Students and Interns
Ivy (A. C.) to direct Naval Medical Research Institute, 846
jaundice outbreak in U. S. Army, 46—E; 51
Kelser (R. A.), International Veterinary Congress award to, 133
Kleinschmidt (H. E.), director of medical service of American Red Cross, 975
malaria, critical problem; its solution, 1043
malaria, government needs quinine, 377
malaria, government places record order for atabrine, 459
malaria, progress in Army's fight against, [Simmons] ★30
manpower, additional American fighters, due to lower death rate since 1900, 58—OS
manpower, lives saved for, Metropolitan statement, 380—OS
Manpower, Medical: See subhead: Procurement and Assignment Service
maternity care and employment of mothers in industry, standards for, 55
medical administrative corps, (rank increased in) 378; (commission hundred in) 770
Medical and Surgical Relief Committee of America, 210; 1403
Medical Corps, orders, 378
medical depot (Army), St. Louis, 132
medical education, premedical work (recommended by A. M. A.), 850; [Rowntree] ★1228
medical officers for new infantry divisions, 540
Medical Replacement Training Center's Officer Candidate School, Camp Barkeley, 1221
medical schools, organization of emergency base hospitals, 57
medical schools, war program at Texas, 1408
Medical Service: See also subhead: Emergency Medical Service
medical service during maneuvers, 770
medical service plan for wives and infants of service men, 47—E; 846; (Mo.) 974
medical societies (county) urged to meet regularly, 1130—E; [Rankin] 1135—ab
medical society course on war medicine and surgery, N. Y., 1407
medical students and interns with medical corps of U. S. Army, 703
medical students, interns and faculty members, commissions for, 702
medical students, interns and residents, deferment for 1943-1944, 1220
medical students, internship, one-year, [Rowntree] ★1228
medical supplies, conservation: OCD Medical Division Memorandum 16, 130
medical supplies, mobile unit for transporting: supplies for battalion aid station; also operating unit in large van, 1045
metal, medical detachment collects 70 tons of scrap, 540

MEDICINE AND THE WAR—Continued
Metcalfe (R. F.) Brig. Gen. transferred to Washington, 378
military neuropsychiatry course at U. of Cincinnati, 633
morphine, OCD uses new method of giving, 1133
narcotic drugs, allocation of, 543
neurologic surgery, courses for Army doctors, 770
nurses aides for veterans hospitals: requested of American Red Cross, 971
nurses good will tour to South America, 772
nurses, married, to continue on active duty, 704
nurses (public health) needed, correction, 627
nurses, resurvey of all professional nurses, 971
nurses, shortage of, 378
nurses (student), plan to increase recruitment, 772
nurses wanted for war, 58—OS
nutrition, Army dietitians, shorten course for, 1045
nutrition: Army ration, [Howe] ★93
nutrition Navy ration, [Brown] ★96
nutrition, Rogers (E. S.) director of war nutrition services, N. Y., 632
nutrition, saving food, pamphlets on, 377
nutrition, unusual foods of high nutritive value, [Wilder & Keys] ★529
Office of Civilian Defense: See also under other subheads as Civilian defense; Emergency Medical Service
Office of Civilian Defense, appointments, 627; 846; 1313
parachute jumps (delayed) 1311—E
parachutes to drop doctors and nurses to stricken areas, 210
peptic ulcer and irritable colon in the Army, [Chamberlin] 476—ab
physical examination in Selective Service, [Rowntree] ★1227
Physicians: See also subhead: Procurement and Assignment Service; and other subheads
physicians, aliens as commissioned officers, 119: 264—E; 120: 703
physicians, appeals procedure for, 1132
physicians, cars operating during blackouts: equipped with blackout lighting devices, 248
physicians, enormous self-sacrifice unappreciated, 1308—E
physicians for emergency base hospitals, 209
physicians, Idaho, in the armed forces, 378
physicians, licensure for "dislocated" physicians, 925—E; [Paullin] ★1224; (discussion) 1232—ab; 1308—E; 1401—E
physicians, need of Army for, how to volunteer; some "don'ts," 455—E; 457
physicians, objective in procurement almost reached, 702; (obligation fulfilled) [Rowntree] ★1227
physicians, recent tributes to, in Chicago newspapers, 699—E
physicians, resolution on practice of those in service, Ohio, 546
physicians, shortage of, plans to meet need for medical care in areas, 458
physicians, want doctors trained in skiing and mountain climbing, 704
physicians, war benevolence fund for those in service, Pa., 546
physicians, women, raise $2,000 for relief fund, 129
physicians, women reservists at Naval Medical Center, 1133
plumber in civilian defense: training course at U. of Michigan, 970
potassium bitartrate, domestic supply, 294
Procurement and Assignment Service, [Rankin] ★1135; [Paullin] ★1224; 1308—E
Procurement and Assignment Service, "dislocation" of physicians; number needed; "essential" positions, [Lahey] ★1138; ★1142; [Hillman] ★1140
Procurement and Assignment Service, inconsistencies in, (various authors) 1142—ab; 1143—ab
Procurement and Assignment Service, medical manpower, problems of, 1308—E
Procurement and Assignment Service, Pepper hearings on medical manpower, 766—E; 840—E; 922—E; 927; (Senator Millikin on behalf of A. M. A.) 1042—E; (reply) [O'Brien] 1414—C; 1401—E
Procurement and Assignment Service, physicians for civilians, [Barker] ★1230
Procurement and Assignment Service, physicians willing to be dislocated and those over 45, 1399—E
Procurement and Assignment Service, physicians supply and distribution in Illinois, [Camp] 1234—ab
Procurement and Assignment Service, Seeley (S. F.) detached from, 208—E; 209
Procurement and Assignment Service, state chairmen, 459; (tribute to) [Diehl] 1232—ab
Procurement and Assignment Service, supply of physicians for armed forces and civilian population, Parran's proposal, 766—E; 933; [Parran] ★1224
psychiatric survey of men classified under Selective Service, 852
MEDICINE AND THE WAR—Continued
psychiatrist (naval), training, [Marsteller & others] ★968
psychologists, Army to train, to sift illiterate selectees, 541
quinine, government urgently needs, 377
radio, committee to study effect of, on public morale, 709
radio program of A. M. A., "Doctors at War," 925—E; 972—OS; 1047—OS; 1324—OS
rehabilitation and prehabilitation, [Rowntree] ★1229
rehabilitation council formed by American Physiotherapy Association, 633
Reynolds (Edward R.) appointed special assistant to Surgeon General, 1045
roentgen ray equipment, general limitation order on, 705
rubber articles, how to prolong life of, 847; 1134; (danger of cresol) [Waters] 1336—C
scapula (winged) in soldier from knapsack, [Ilfeld & Holder] ★448
scientists, National Roster of Scientific and Specialized Personnel, 1134
seasickness and airsickness in Navy personnel, 1309—E
sea water to relieve dehydration, [Bradish & others] ★683
Selective Service Act, mental hygiene of war service for 18 and 19 year old men, 705
Selective Service Board, 28,000 physicians donated service, 1308—E
Selective Service System, [Rowntree] ★1226; (rejection statistics) ★1228
skin trauma [Downing] 1433—ab
soldiers and recruits, 18 year old draftee, 705; 1042—E; [Hillman] ★1142; [Rowntree] ★1229
soldiers and recruits, glycosuria and probable mild diabetes: reject for service? 996
soldiers and recruits, syphilis in those of draft age, [Vonderlehr & Usilton] ★1369
soldiers and recruits, U. S. Civil Service Commission source of recruitments, 770
soldiers and recruits, why first rejected and later called up, (various authors) 1142—ab; 1143—ab
Soldiers' and Sailors' Civil Relief Act Amendments, (Bureau report) 539
specialists' units in the Navy Medical Corps, [McIntire] ★1136
stomach diseases in military service, [Kantor] ★254; [Haemmerli] 1072—ab; [Demole] 1073—ab; [Kapp] 1073—ab
stomach ulcer in armed forces, [Friedell & others] ★666
stretcher (Neil Robertson), new type for merchant ships, 218
student loan fund appointments, 772
Students: See also subheads: Medical Students; Scientists
sugar rationing for acutely ill patients in hospitals, 130
suicides drop in war: Metropolitan Life report, 768—E; 777
surgeon and air raid injuries, 505—ab
surgery, amputations, "guillotine method," [Kirk] ★13
surgery (reconstructive) of face, [Smith] ★352
sutures, sheep intestines for, WPB instructions, 294; 547
Syphilis: See subhead: Venereal disease
technical medical training courses, 1221
technicians, school for, 769
typhoid vaccination in Army, (correction) 88
Underwood (Felix I.) appointment, 771
U. S. Army: See also under other subheads
U. S. Army and Navy physicians listed in AMERICAN MEDICAL DIRECTORY, 1047—OS
U. S. Army doubles officer candidates in medical administration school, 295
U. S. Army health, 294
U. S. Army hospitals, new names: Schick General and Kennedy General, 133
U. S. Army medical personals and orders, 704; 770; 845; 1132
U. S. Army Medical services, committee appointed to study, 377
U. S. Army, policies on initial appointment of medical officers, 129
U. S. Army, training medical officers for, [Hillman] ★1141
U. S. Citizens Defense Corps, 771
U. S. Navy: See also under other subheads
U. S. Navy dental officers ordered to Mayo Foundation, 846
U. S. Navy Medical Corps, reserve medical officer in, [McIntire] ★1136
U. S. Navy Medical School and Naval Medical Center, new heads, 378
U. S. of America Typhus Commission, 1044
venereal disease, Chicago hotel quarantined, 1326
venereal disease control, civilian measures, [Aselmeyer] ★880; [Rowntree] ★1230
venereal disease, epidemiology, gonorrhea and the Navy, 926—E
venereal disease, number incapacitated by, for war service, 1328
MEDICINE AND THE WAR—Continued
venereal disease, syphilis in men of draft age, [Vonderlehr & Usilton] ★1369
venereal disease wartime control: recent discoveries, applied, [Stokes] ★1093
veterinarians, commissioning of, 703
vinyl acetate under allocation control, 772
war medicine, lecture on, New York, 463
war problems for medicine, [Lahey] ★1138
War Recreation Congress, 705
water supplies, protection: maintenance, OCD Sanitary Engineering Bulletin No. 1, 970
Wile (U. J.) commissioned in U. S. Public Health Service, 846
Wilson (Paul W.) new head of Navy Medical School, 378
Women's Auxiliaries aid Medical and Surgical Relief Committee, 130
Ziegler (Mark V.), civilian defense appointment, 846; 1313
MEDICINES: See Drugs
MEDICOLEGAL: See Legal Medicine (cross reference)
MEDINAL, Elixir, N.N.R., (Schering & Glatz) 453
MEDITERRANEAN Disease: See Anemia, erythroblastic
MEDULLARY Transfusion: See Bone Marrow
MEETINGS: See Societies, Medical; list of societies at end of letter S
MEIGS'S syndrome, [Ritvo] 718—ab
MELANCHOLIA: See Mental Depression
MELORHEOSTOSIS, [Franklin] 482—ab
MELVITE Food, 66—BI
MEMBRANE in external auditory canal, 872
MEN: See Adolescence; Male (cross reference); Manpower
MENADIONE given mother in labor to prevent hemorrhage in newborn, [Parks] 988—ab
methylnaphthoquinone and blood clotting, [Stein] 242—ab
ointment applied to skin of newborn, [Vollmer] 1162—ab
treatment of relapsing fever, [Robinson] 1070—ab
MENDOZA, JOHN A., claim adjuster contracts medical service, 777
MENINGIOMA, olfactory Cushing, x-ray diagnosis, [Erikson] 161—ab
MENINGITIS: See also Leptomeningitis; Meningoencephalitis
Acute Aseptic: See Choriomeningitis
bacterial, [Roberts] 1069—ab
cerebrospinal epidemic, sulfamethazine for, [Macartney] 241—ab
cerebrospinal epidemic, sulfathiazole for, [Pedersen] 162—ab
influenzal, treatment: type B rabbit serum, sulfonamides, hydroxyethalpocupreine hydrochloride, [Scully] 721—ab
influenzal (type B), in children, [Neter] 76—ab
Lymphocytic: See Choriomeningitis
Meningococcus: See Meningitis, cerebrospinal epidemic
pneumococcic, serums for, [Finland] ★1306
pneumococcus, treatment, [Ruegsegger] 1430—ab
MENINGOCOCCUS carriers, 87
infection, sulfonamides for, [Klein] 566—ab
Meningitis: See Meningitis, cerebrospinal
MENINGOENCEPHALITIS, lymphogranuloma venereum virus cause of, in Negro, [Sabin & Aring] ★1376
Syphilitic: See Dementia Paralytica
torula histolytica; bilateral mastoidectomy and sulfonamides for [Marshall & Teed] ★527
MENNINGER Foundation: See Foundations
MENOPAUSE, angina pectoris in, [Fischer] 83—ab
migraine with, 326
symptoms, diethylstilbestrol for, exfoliative dermatitis after, [Kasselberg] ★117
symptoms, oral ethinyl estradiol for, [Watson] 649—ab
MENSTRUATION, capillary fragility and hemorrhage during: extract teeth? 1079
Cessation of: See Menopause; Menstruation, delayed
cycle, relation to date for artificial insemination, [Guttmacher] ★444
delayed, and early pregnancy, prostigmine differentiates, [Winkelstein] 564—ab
delayed, Chumanie's Triple XXX Tablets, 640—BI
Disorders: See also Dysmenorrhea
disorders, antimenorrhagic factor "glanules" for, [Sutherland] 484—ab
disorders, vitamin E for, [Butt] ★1035
electrometric timing, [Langman] 564—ab
hysterectomy (subtotal) followed by, 492
iron lost by, [Heath] ★369
migraine with, 326
nostril obstruction preceding, 996
persistent endometrial bleeding after implanting estrogen, 575

MENSTRUATION—Continued
pregnandiol in urine; Venning's gravimetric test for, [Hamblen] 988—ab
"safe period," [Smith] 570—ab
MENTAL DEPRESSION, promotion; effects of the war, [Flanagan] ★1383
MENTAL DISORDERS: See also Dementia Paralytica; Dementia Precox; Epilepsy; Hospitals, psychiatric; Mental Depression; Psychoses
carbon monoxide poisoning prognosis in suicidal patients, [Van Amberg] 1342—ab
effects of shock after explosion, [Wespi] 159—ab
symptoms from dinitrotoluene exposure, [McGee] 1426—ab
symptoms in bromide intoxication, [Kitching] 483—ab
treatment, amphetamine-sulfate barbiturate, [Davidoff] 239—ab
treatment, electric shock, [Myerson] 1254—ab
treatment, electric shock, AC (not DC) current for, 996
treatment, prefrontal lobotomy, [Drake] 1066—ab
vitamin C deficiency and dental conditions in, [Barahal] 233—ab
MENTAL HEALTH: See Mental Hygiene
MENTAL HOSPITALS: See Hospitals, psychiatric; Hospitals, state
MENTAL HYGIENE for adults at U. of California, 774
lectures at Hogg Foundation, at U. of Texas, 1050
program, radio to be used, Minn., 299
war service for 18 and 19 year old men: open letter from 9 physicians, 705
unit, Suffolk County, N.Y., 299
MENTAL TEST: See Intelligence Test
MENTHO-KREOAMO, 66—BI
MERCUPURIN, diuretics, [Salzer] 227—C
MERCURIC Compounds: See under Mercury
MERCURY, diuretics, [Salzer] 227—C
excretion by glomerull, [Zeisler] 786—C; (reply) [Simonds] 786—C
mercuric oxycyanide, MacKenzie's noninjurious lubricating jelly, 847; 1134
poisoning (acute), sodium formaldehyde sulfoxylate for, [Wolpaw] 650—ab
poisoning, oral symptoms, [Schour & Sarnat] ★1203
poisoning, sodium thiosulfate for (Council report), 124
treatment, oral plus bichloride hot compresses for verruca, 492
MERIT Short Wave Diathermy, 1156—BI
MERRITT'S (Dr.) Health Shoes, 470—BI
MESENTERY, chyle cysts in, [Malm] 244—ab
MESSEL Medal: See Prizes
METABOLISM: See also under names of specific substances as Calcium; Carbohydrates; Iron; Phosphorus; etc.
basal, and thymus hormone, [Bomskov] 1258—ab
basal, minus reading; rule for thyroid extract dosage, 86
disturbances from dinitrotoluene exposure, [McGee] 1426—ab
pheochromocytoma with hypermetabolism, [McCullagh] 234—ab
METAL: See also Gold; Lead; Mineral; Silver; Tin
Foreign Bodies: See Eyes; Muscles
grater, Hollander's use of, on sphygmomanometer cuff as pain sensitivity test, 249
industrial dusts, effect on teeth and gums, [Schour & Sarnat] ★1201
industrial poisoning associated with drosses, 1079
safety and glare goggle, [Stieren] ★26
scrap, medical detachment collects 70 tons, 540
METASTASES: See Cancer
METATARSUS, march fracture, [Sirbu] 793—ab
METHYL ALCOHOL, poisoning, Germany, 138
METHYL TESTOSTERONE: See Androgens
3,3'-METHYLENE-BIS-(4-hydroxycoumarin): See Dicoumarin
METHYLENE BLUE: See Methylthionine Chloride
METHYLNAPHTHOQUINONE: See Menadione
METHYLROSANILINE (gentian violet) treatment for pinworms, 166
METHYLTHIONINE chloride measurement of vitamin C, [Castro Mendoza] 1257—ab
METROPOLITAN Life Insurance Co., (statement on lives saved for defense because of better medical care, etc.) 380—OS; (Dr. Dublin's statement on pneumonia death rate declining) 456—E; (suicides drop in war) 768—E; 777; (education program on rheumatic fever), 778
MEXICAN Pediatric Society, (new officers), 466
MICHIGAN Medical Service relation to state society, [McCaun] 1320—ab; [Haughey] 1321—ab
University of: See University
MICROBIOLOGY: See Bacteriology
MICROORGANISMS: See Bacteria
MICROSCOPY, electron, symposium on, at chemical exposition, 709
MICTURITION: See Urination
MIDWIVES, practicing, shortage, England, 977
MIEL de Maguey, 66—BI
MIGRAINE: See also Headache
associated with menstruation, 326
hypertension relationship, [Weiss] ★1084
treatment, amphetamine sulfate, [Gottlieb] 1427—ab
treatment, prostigmine bromide, [Pelner] 1252—ab
treatment, vitamin B_1, 324
vascular accidents in, [Dunning] 792—ab
MIGRO Headache Powder, 552—BI
MILITARY MEDICINE: See also Medicine and the War; World War
Association of Military Surgeons (meeting), 634; (Wellcome Medal) 1133; (elections) 1238
MILK: See also Cheese; Cream; Whey; Medicolegal Abstracts at end of letter M
allergy, vegetable substitute with taro root (pyo meal) [Feingold] 480—ab
borne outbreak of gastroenteritis, Oklahoma City, [Terzich] 403—ab
cow's, approximate percentage composition, [Jeans] ★916; ★917
dehydrated, effect on vitamin content, [Kohman] ★837; 855
dried, in lumps, German inventor at Kiel produces, 971
dried whole and skim milk, use of, advocated, [Wilder & Keys] ★530
Enzylac Milk, 453
factor: grass juice factor, [Elvehjem] ★1396
farms for reducing, 168
goat's, Hillshire Down Cosmetics employing, 391—BI
goat's: quotation from J.A.M.A. used in advertisement not to be found, 325
homogenized, soft curd, in infant feeding, [Wolman] 316—ab
Human: See also Lactation
human, antihemorrhagic effect in hemophilia, 636
human, approximate percentage composition, [Jeans] ★916; ★917
human (boiled), beriberi heart in infant fed on, [Rascoff] ★1292
human, nicotine in, from cigaret smoking, [Periman & others] ★1003
human, sulfonamides elimination in, [Cibils Aguirre] 485—ab
human vs. cow's; use in feeding infants, [Jeans] ★913
iron in, shortage of, 426—ab
Leg: See Phlegmasia alba dolens
nutritive value, [Wilder & Keys] ★530
requirement in child feeding; source of calcium, protein, vitamins, [Jeans] ★920; ★921
soft curd, produced by treatment with proteolytic enzymes, 453
Sugar: See Lactose
therapy in duodenal ulcer, [Shay & others] ★740
therapy (intragastric drip) for peptic ulcer, [Winkelstein & others] ★743
vitamin D, (Council report) ★620
MILLIKIN, E. D., Colorado senator, favorable to A. M. A. at Pepper hearings, 1042—E
MINERAL: See also Copper; Gold; Iron; Lead; Metal; Silver
composition of body of fetus, newborn and adult, [Macy] ★35
content of wheat flours, [Maynard] ★693
elements (principal) in nutrition, [Macy] ★34; (excess) ★41
elements (trace) in nutrition, [Shils & McCollum] ★609
Oil: See Petrolatum, liquid
water, Houston's Mineral Water, 785—BI
water, Pachanga Mineral Water, 552—BI
MINERS, coal, furunculosis in, mixed vaccine for, [Möhlenbruch] 487—ab
MINNESOTA, University of: See University
MINRA, 1334—BI
MIRACLE Salve, 225—BI
MISCARRIAGE: See Abortion
MISSION Brand Concentrated California Orange Juice, 453
MISSISSIPPI Valley Conference on Tuberculosis also Trudeau Society, 62
Valley Medical Society award, 1236
MITRAL VALVE, atheromatosis, [Hellwig] 312—ab
stenosis, chest pain in, [Burgess] 78—ab
M-K—Mantho-Kreoamo, 66—BI
MOBILIZATION: See Medicine and the War
MOFFAT'S (Mrs.) Shoo Fly Powders for Drunkenness, 474—MI
MOLASSES, nutritive value, [Maynard] ★697
MOLD: See Penicillin
MONILIASIS, treatment of resistant thrush, 1349
MONONUCLEOSIS, INFECTIOUS, throat and nose signs, 1152
MONTEGGIA'S Fracture: See Ulna
MONTES de Oca Prize: See Prizes
MONUMENTS: See Physicians, monument to
MOOSER, HERMANN, called to Barcelona to help combat typhus, 1153
MORALE, need for honest apology and teamwork, [Swaim] 982—C
problem in venereal disease control, [Stokes] ★1099
public, committee to study effect of radio on, 709
MORAN (Peggie) Savon, 1156—BI
MORBIDITY: See Disease
Statistics: See Vital Statistics
MOREIRA da Fonseca (appointment), 854; (elected president), 1240
MORGAGNI, changing concepts in pathology, 375—E
MORPHINE, effect on measurements of pain threshold, [Andrews] ★525
new method of giving with glass and plastic device, 1133
sublingual administration, 1349
sulfate, action on intestinal motility, [Puestow] ★906
treatment of burns, 726
use in conduct of labor in primipara, 412
MORRIS, JOHN N., on medical mission from Australia, 1314
MORSUS Humanus: See Bites
MORTALITY: See Accidents; Death; Maternity mortality: Vital Statistics; etc.; under names of specific diseases
MORTUARY services, emergency, 542; (in Boston fire disaster) [Faxon & Churchill] ★1385
MOSQUITOES, Aedes simpsoni causes yellow fever in western Uganda, [Mahaffy] 796—ab
bites, hypersensitivity to, 871
bites, nature of substance instilled; chemical structure, 726
myxomatosis transmitted by, 63
yellow fever control and, South America, [Sawyer] ★1189
MOTHERS: See Families; Maternity; Pregnancy
MOTION: See Movements
Pictures: See Moving Pictures
MOTOR Vehicles: See Automobiles
MOTTLED Enamel: See Teeth
MOUNTAIN climbing, want doctors trained in, 704
sickness (chronic anoxia) [Hurtado] ★1278
MOUTH: See also Jaws; Teeth; Tongue
American Association for Advancement of Oral Diagnosis meeting canceled, 464
cancer, industrial, [Schour & Sarnat] ★1205
cancer, precancerous lesions in avitaminosis B, [Martin] 647—ab
cellulitis of floor of: Ludwig's Angina, [Taffel] 81—ab; [Orton] ★876
conditions, cooperative study, Escanaba, 1147
conditions, occupational origin, [Schour & Sarnat] ★1197
periadenitis mucosa necrotica recurrens or lichen planus, (reply) [Kile] 492
relation to flying, [Carson] ★6
MOVEMENTS, early, after hemiplegia, 995
loss of, ethyl chloride freezing for, [Henry] 1256—ab
MOVING PICTURES, "Fighters in White": emergency medical services, 210; 1148
on immunization by Lederle Laboratories, available, 136
on peptic ulcer from Lahey Clinic, 216
MOXON Medal: See Prizes
MRS., Trade name beginning with "Mrs.": See under surname
MUCOUS MEMBRANE: See Endometrium
MÜTTER Lecture: See Lectures
MUMPS: See Parotitis, Epidemic
MUNITIONS: See also Bombs; Wounds, gunshot
metabolic disturbances from dinitrotoluene, [McGee] 1426—ab
MURDER: See Suicides
MUSCLES, Atrophy: See Atrophy, muscular
Cardiac: See Myocardium
Contraction: See Contracture
Cramps: See Cramps
Dystrophy: See Dystrophy; Myasthenia gravis
foreign bodies, broken needle in deltoid, 326 (reply: technic for removing) [Case] 1350
galvanic stimulation after peripheral nerve section: John Reid's theory of 1841, 375—E
hyoid, role in deep infections of neck, [Orton] ★874
Muscle-Rub, 470—BI
pain in left shoulder; relation to angina pectoris, [Harrison] ★520
procaine infiltration, technic, [Travell & others] ★417
quadriceps insufficiency, relief of spasm, Kenny principles applied to, [Hart] ★900
regeneration, effects of immobilization and activity on, [Hines] ★515
skeletal, atrophy, [Solandt] ★511
spasticity, pain and tenderness in acute stage of poliomyelitis, [Ober] ★514
Strength, decrease of: See Myasthenia gravis
Tonus: See Amyotonia
MUSEUM: See also Cleveland; Royal College of Surgeons
to exhibit display on nutrition, Newark, N. J., 215
MUSIC: See Physicians, avocations
MUSTARD Gas: See *di*Chloroethyl sulfide
MYALGIA: See Muscles, pain
Idiopathic: See Arms, pain; Shoulder, pain

MYASTHENIA Gravis: See also Dystrophy, muscular
acute fulminating onset in 5 year old, prostigmine methylsulfate and bromide for, [Lieberman] ★1209
in infant born of a myasthenic mother; prostigmine methylsulfate and bromide for both, [Strickroot & others] ★1207
thymectomy effect on prostigmine methylsulfate and acetylcholine in, [Harvey] 1251—ab
MYATONIA Congenita: See Amyotonia
MYCOSIS: See Moniliasis
Cutaneous: See Dermatophytosis
MYELITIS: See Encephalomyelitis
MYELOMA, radioactive strontium for, 1350
MYIASIS, aural, from screw worms, chloroform for, [Turnbull & Franklin] ★117
Dermatobia hominis or warble fly larva, procaine hydrochloride for, [Harrell] 403—ab
MYOCARDITIS, isolated, [Saphir] 646—ab
MYOCARDIUM: See also Myocarditis
Infarction: See also Arteries, coronary occlusion; Thrombosis, coronary
infarction, clinical features; prognosis, [Rathe] ★99
lanatoside C effect on [Tandowsky] 1425—ab
lesions from diphtheria in children; electrocardiography, [Neubauer] 796—ab
MYOMA, experimental fibroids, antifibromatogenic action of steroid hormones, [Lipschütz] ★171
MYOPIA, high, floating opacities in, 578
progressive; and hypothyroidism in children, any relation between? 872
MYRINGOTOMY, decrease in, in otitis media, [DeSanctis & others] ★1087
MYXEDEMA, angina pectoris in, [Fischer] 83—ab
calcium and phosphorus excretion in, [Robertson] 242—ab
pituitary-thyroid interrelation, [Severinghaus] 569—ab
MYXOMATOSIS virus, transmission by mosquitoes and fleas, 63

Medicolegal Abstracts

ABORTIONS: criminal; evidence; hospital records, 474
criminal; revocation of medical licenses, 474
ADVERTISING: dental; statutory restrictions valid, 644
obesity cure; unfair competition, 1060
ANESTHETIC: spinal; accident insurance in relation to death, 395
spinal; fragment of needle left in patient, 986
ASSAULT AND BATTERY: operations; consent by minor, 562
ASSOCIATIONS: medical; by-laws; propriety a question for membership, 789
medical; ethics; expulsion of member for unethical conduct, 789
medical; membership; court's right to reinstate expelled member, 789
AUTOPSIES: coroners; right to perform without inquest jury, 150
embalmers; liability when autopsy performed by coroner, 150
BIRTH CONTROL: contraceptive devices; prescription by physician unlawful, 1338
contraceptive devices; use as ground for divorce, 475
statutes; constitutionality, 1338
statutes; legislative history, 1338
BLOOD: paternity; blood grouping tests, 1160
CANCER: patent on remedy, 985
secret remedy; suspension of medical license, 788
testicle; trauma in relation to, 1423
trauma in relation to, 1423
workmen's compensation in relation to, 1423
CARBOLIC ACID: sale by pharmacist to drunk person, 394
CONTRACEPTIVES: See Birth Control
CORONERS: autopsies; right to perform without inquest jury, 150
inquests; right to order autopsy without calling jury, 150
CRIMES: inheritability of criminal tendencies, 229
DENTAL PRACTICE ACTS: advertising; laboratory's advertisements inuring to dentist, 644
advertising; statutory restrictions valid, 644
dentures; sale by laboratories, 395
laboratories; sale of dentures, 395
licenses; revocation; advertising; large display signs, 644
licenses; revocation; as cruel and unusual punishment, 644
DRUGS: See also Harrison Narcotic Act
dispensing by physician as constituting operation of pharmacy, 1159
drunkenness cure misbranded, 474
osteopath's right to use, 716
sales; dispensing as constituting, 1159
tartar emetic; dangerous to health, 474
DRUNKENNESS; blood tests; admissibility in evidence, 717
criteria of, 717
DRUNKENNESS—Continued
poisons; sale by pharmacist to drunk person, 394
tartar emetic as cure misbranded, 474
EMBALMERS: autopsies; liability when performed by order of coroner, 150
EMBOLISM: cerebral; saphenous internal vein; rupture of in relation to, 1423
cerebral; workmen's compensation in relation to, 1423
ETHICS: medical; expulsion from medical society for unethical conduct, 789
EUGENICS: criminal tendencies; inheritability, 229
sterilization, compulsory; crimes; as justification, 229
sterilization, compulsory; crimes; exclusion of specified offenses, 229
EVIDENCE: See also Malpractice; Privileged Communications
blood grouping tests, 1160
drunkenness; blood tests, 717
hospital records, 474
lie detector tests; admissibility of results, 789
paternity; blood grouping tests, 1160
scientific tests, 717, 789, 1160
FEDERAL TRADE COMMISSION ACT: obesity remedy deceptively advertised, 1060
FOOD, DRUG, AND COSMETIC ACT: federal; drugs; drunkenness cure misbranded, 474
FOODS: milk; regulatory state statute and local ordinance; conflicting provisions, 1059
milk; sale of guaranteed raw milk prohibited, 1059
milk; standards established by private association; statutory adoption of, 1059
HARRISON NARCOTIC ACT: conspiracy; between manufacturer and physician, 985
morphine; repeated sales in large amount indicate unlawful use, 985
sales; large quantities of morphine sold to physician, 985
HOSPITALS FOR PROFIT: burns; electric pad, 148
exclusion of practitioners, 862
nurses; student; liability for negligence of, 148
HOSPITALS, GOVERNMENTAL: criteria of, 862
HOSPITALS IN GENERAL: exclusion of practitioners, 862
nurses; negligence when acting under physician's direction, 1246
privacy of patient; publication of picture and description of ailment, 70
records; admissibility in evidence, 474
records; privileged communications; waiver by administrator of patient's estate, 1245
roentgen treatments; administration by technician, 563
technicians; roentgen treatments administered by, 563
INSANITY: civil; workmen's compensation in relation to, 149
INSURANCE, ACCIDENT: anesthetic; spinal, death from, 395
empyema; following administration of narcotic, 149
narcotics; empyema and death following administration, 149
pneumonia, 986
pneumonia; empyema following administration of narcotic, 149
LIBEL AND SLANDER: physical examination; report by physician to employer of examinee, 230
privileged communication; report by physician to employer of examinee, 230
LIE DETECTORS: admissibility of tests in evidence, 789
MALPRACTICE: anesthesia; spinal; fragment of needle left in patient, 986
anesthetist; fragment of needle left in patient, 986
anesthetist; surgeon's liability for negligence of, 986
bullet; mistake as to location, 1245
burns; electric pad; liability for negligence of student nurse, 148
burns; hot water, 1246
circumcision; injury from; res ipsa loquitur, 475
diagnosis; mistake in, 311, 1245
electric pad; burn due to negligence of student nurse; liability, 148
evidence; deposition of defendant introduced by plaintiff; effect of, 862
evidence; res ipsa loquitur; foreign bodies, 986
evidence; res ipsa loquitur; injury from circumcision, 475
evidence; roentgenograms; interpretation of, 716
evidence; witnesses, expert; medical students, 1245
evidence; witnesses, expert; necessity for, 71, 862
evidence; witnesses, expert; opinion as to negligence of optometrist, 149
evidence; witnesses, expert; opinions invading province of jury, 716
evidence; witnesses, lay; opinion as to electric pad burn, 148
MALPRACTICE—Continued
foreign bodies; bullet; mistake as to location, 1245
foreign bodies; needles, 986
foreign bodies; res ipsa loquitur, 986
fractures; misalignment, 716
fractures; operation not performed, 862
fractures; roentgenograms; failure to check on reduction, 71
fractures; roentgenograms; failure to use in diagnosis, 394
glaucoma; failure to diagnose, 311
hospital technicians; limitation of action, 563
joint liability; anesthetist and operating physician, 986
limitation of action; continuing treatment, 311
limitation of action; diagnosis, mistake in, 311
limitations of action; roentgen treatment by hospital technician, 563
needle left in patient, 986
nurses; hospital; liability for negligence of, 1246
operations; consent; by minor, 562
optometrist; improper glasses prescribed, 149
osteopaths; fractures; improper treatment alleged, 716
partnership; liability of individual partners, 71, 311
release; employer of patient released from liability, 394
roentgen treatment; hospital technician, 563
roentgenograms; alteration in markings on, 1245
roentgenograms; failure to make in fracture case, 71, 394
roentgenograms; interpretation of, 716
skill and care; standards; doctors of medicine, 71, 394, 475
skill and care; standards; optometrists, 149
skin donor; consent by minor, 562
tetanus; antitoxin not administered following injury, 986
tetanus; wound not sterilized, 986
workmen's compensation; jurisdiction of commission, 394
MARRIAGE AND DIVORCE: contraceptives; use as constituting desertion, 475
MEDICAL PRACTICE ACTS: appeals; mandamus, 70
cancer; use of secret remedies, 788
evidence; hospital records, 474
hospital technician; roentgen treatment, 563
licenses; as conferring property rights, 70
licenses; graduate of foreign school, 789
licenses; revocation; abortion, criminal, 474
licenses; revocation; gross immorality, 1159
licenses; revocation; malpractice, 1159
licenses; revocation; statutory procedure mandatory, 70
licenses; revocation; suspension under authority to revoke, 645
licenses; suspension; fraud and deceit in practice, 788
licenses; suspension; right to revoke includes right to suspend, 645
licenses; suspension; secret cancer remedy; use of, 788
mandamus as appeal procedure, 70
roentgen treatments; hospital technician, 563
schools; graduate of foreign institution denied licensure, 789
schools; standards established by private associations; legislative adoption of, 1059
secret remedies; use of, 788
MILK: See Foods
NEUROSES: trauma in relation to, 562
workmen's compensation in relation to, 562
NURSES: hospital; liability for negligence of, 1246
student; liability for negligence of, 148
OBESITY: remedy deceptively advertised, 1060
OPTOMETRISTS: malpractice; improper glasses prescribed, 149
OPTOMETRY PRACTICE ACTS: licenses; revocation; trial de novo on appeal, 1059
OSTEOPATHY: construction of statute a question of law for the court, 716
drugs; right to use, 716
fractures; improper treatment, 716
scope in general; "as taught and practiced in the legally incorporated colleges of osteopathy of good repute," 716
surgery; right to use, 716
PARALYSIS: workmen's compensation in relation to, 562
PARTNERSHIP: malpractice; liability of individual partners, 71, 311
PATENTS: cancer remedy, 985
PATERNITY: blood grouping tests, 1160
PHARMACISTS: poisons; sale to drunk person, 394
PHARMACY PRACTICE ACTS: dispensing by physician as constituting operation of a drug store, 1159
PHYSICAL EXAMINATIONS: see also Workmen's Compensation Acts, medical examinations
report by physician to employer of examinee as constituting libel, 230

Medicolegal Abstracts—Continued
PNEUMONIA: accident insurance in relation to, 149, 986
POISONS: pharmacists; sale to drunk person, 394
PRIVACY: hospital patient; publication of picture and description of ailment, 70
PRIVILEGED COMMUNICATIONS: hospital records; waiver by administrator of patient's estate, 1245
report by physician to employer of employee, 230
waiver; administrator of patient's estate, 1245
waiver; death certificate in evidence, 150
SCHOOLS: See Medical Practice Acts
STATUTES: construction; legislative history, 1338
SUICIDE: workmen's compensation in relation to, 149
TESTICLE: cancer; workmen's compensation in relation to, 1423
TARTAR EMETIC: drunkenness; cure dangerous to health, 474
TRAUMA: cancer in relation to, 1423
neuroses in relation to, 562
VETERINARY PRACTICE ACTS: licenses; revocation; court's right to modify order, 645
licenses; revocation; aiding unlicensed person to practice, 645
licenses; revocation; gross moral or professional misconduct, 645
licenses; revocation; procuring business through "informers," 645
licenses; revocation; suspension under authority to revoke, 645
licenses; suspension; right to revoke includes right to suspend, 645
VITAL STATISTICS: death certificate; privileged communication waived by introduction in evidence, 150
VEINS: saphenous internal; rupture of in relation to cerebral embolism, 1423
WORDS AND PHRASES: "accident," 562
"accidental death," 395
"accidental means," 149, 395
"advertising," 644
"as taught and practiced in the legally incorporated colleges of osteopathy of good repute," 716
"for drunkenness," 474
"gross moral or professional misconduct," 645
"immorality" 1159
"large display sign," 644
"malpractice," 1159
"neuroses," 562
"professional services," 644
"secret," 788
"violence to the physical structure of the body," 1245
"visible contusion of wound," 395
WORKMEN'S COMPENSATION ACTS: cancer; testicle, 1423
embolism; cerebral; saphenous internal vein ruptured followed by thrombophlebits and pulmonary embolisms, 1423
insanity, 149
leg; amputation to provide a serviceable, stump, 1060
malpractice by physician, 394
medical examinations; roentgenograms; Lipiodol injections, 1246
medical examinations; treatment as part of, 1160
medical treatment; operation; amputation to provide serviceable stump, 1060
medical treatment; operation; refusal to undergo, 790
medical treatment; physical examination in relation to, 1160
neuroses, 562
paralysis attributed to neurosis, 562
mental disturbances following shock, 1245
release; effect on liability of physician for malpractice, 394
roentgenograms; Lipiodol injections, 1246
shock, mental; compensability of sequelae, 1245
suicide; when compensable, 149

N

N. N. R.: See American Medical Association, New and Nonofficial Remedies: and under names of specific products as Chlorides; Dextrose; etc.
NYA: See National Youth Administration
N-A (also known as N-A No. 7, Vicine and Nature's Aid), 1156—BI
NAILS, abnormality of, from trauma (new nail growing toward middle of phalanx), 1262
convex (spoon-shaped) with nutritional anemia, 728
Cutex and Peggy Sage, 307—BI
probable subungual glomus tumor, 88
NA-PA Balm, 66—BI
NAPHTHALENE aceticacid as fruit spray, 207—E
NAPHTHOQUINONES having Vitamin K Activity: See Menadione; Vitamins K
NARCOANALYSIS: See Neurosis, War
NARCOTICS: See also Cannabis; Harrison Narcotic Act (cross reference); Morphine allocation, 543
NASAL Filter: See Nose
Sinuses: See Sinuses, Nasal
NASOPHARYNX culture method in whooping cough, [Brooks & others] ★883
NATIONAL: See also American; International; list of societies at end of letter S
Academy of Medicine memorial to Dr. Francisco Fajardo, Brazil, 1240
Association of Coroners, (meeting) 216
Association of Science Writers, 136
Board for Selection of Medical Students proposed, [Rowntree] ★1229
Board of Medical Examiners, (examinations) 1150
Chemical Exposition, 709
Chiropractic Student loan fund, 293—E
Committee for Resettlement of Foreign Physicians, release by, 1134
Conference Against Echinococcosis, Buenos Aires, 387
Defense: See Medicine and the War
Foundation for Infantile Paralysis: See Foundations
Institute of Health cancer study, 777
Institute of Nutrition, Buenos Aires, 466
League of Nursing Education recommends accelerated program, 384
Oil Products Co., acquires Rare Chemicals, Inc., 852
Radium Commission recommendation: organize cancer treatment, England, 302
Research Council, (plasma for transfusion used in armed forces) 727; (views on sugar rationing) 765; (American vs. German atabrine) 842—E; (critical antimalarial problem; solution; quinine substitutes) 1043; (tribute to) [McIntire] ★1137; (fellowships) 1329
Roster of Scientific and Specialized Personnel, 1134
Safety Congress and Exposition, 216; (program) 547
Safety Council report on accidents, 62
Science Fund creates Mayer awards, 1150
Society for the Prevention of Blindness, (glaucoma prize), 1238
Tuberculosis Association, 1328
Youth Administration, health status of youth, 634; 773—OS
NATURAL Cosmetics, 308—BI
NATURE, Lust's RETURN TO NATURE, 471—BI
NATURE'S Aid, 1156—BI
Scientific Method for Growing Hair and Cure for Baldness, 1243—BI
NATURENE, 1334—BI
NATUROPATHY, Lust's NATUROPATH, 471—BI
NAUNYN, BERNHARD, quotation (translated) from his "Der Diabetes Mellitus (1906)," [Joslin] 860—C
NAUSEA: See Airsickness; Seasickness; Vomiting
NAVEL: See Umbilical Cord
NAVY, Royal, Gilbert Blane Medal, 464
U. S.: See also Medicine and the War
U. S., Admiral McIntire again Surgeon General; also number of physicians needed for service, 1133
U. S., alien physicians as commissioned officers in, 119: 264—E; 120: 703
U. S., and gonorrhea epidemiology, 926—E
U. S., Bureau of Medicine and Surgery 100th birthday, 46—E
U. S. Naval Medical Center, (Ciba presents portraits to) 1133; (women reservists at) 1133
U. S. Naval Medical Research Institute, Dr. A. C. Ivy to direct, 846
U. S., new hospital in Panama, 627
U. S., ration in, [Brown] ★96
U. S., reserve medical officer in wartime setup, [McIntire] 1136—ab
U. S., standard package of serum albumin human (concentrated), 1041—E
U. S., training psychiatrist, [Marsteller & others] ★968
NAZISM: See Germany
NEAR-SIGHTEDNESS: See Myopia
NECK: See also Lymphatic System, cervical adenitis; Throat
infections, deep, [Orton] ★873
tumors, glomus tumor, [Ottley] 406—ab
NECROSIS: See Periadenitis mucosa necrotica recurrens; under organ or region affected
NEEDLES broken, in deltoid, 326; (reply: technic for removing) [Case] 1350
continuously threaded, in new suturing instrument, [Goodman] ★281
inserted and left in sternum for 5 days for intramedullary infusions, [Doud & Tysell] ★1212
unsterilized, and intradermal tests, danger of infection, 326
NEGROES, health conditions in East Harlem, New York City, 1311—E
infection in childhood effect on tuberculosis in early maturity, [Israel] 1339—ab
meningoencephalitis due to lymphogranuloma venereum virus, [Sabin & Aring] ★1376
patient first to undergo cardiac suture performed by Dr. D. H. Williams, a Negro surgeon, 348—ab
rural tuberculosis in Brazil, 1054
syphilis in men of draft age, [Vonderlehr & Usilton] ★1369
NEMBUTAL: See Pentobarbital Sodium
NEOARSPHENAMINE mortality in antisyphilitic therapy, [Chana C.] 723—ab
treatment of relapsing fever in Addis Ababa, [Robinson] 1070—ab
treatment plus bismuth for latent syphilis, [Kahn & Becker] ★338 (discussion) 346
treatment, cerebral lesions after [Courville] 1431—ab
NEOPLASMS: See Cancer; Sarcoma; Tumor; under region or organ affected
NEOSOL solution or inhalant A, (Council report) 287
NEOSYNEPHRIN raises blood pressure, [Elmes] 722—ab
NEPHRECTOMY: See Kidneys, excision
NEPHRITIS: See also Pyelonephritis
glomerular (chronic), antistreptolysin titer in, [Earle] 237—ab
glomerular (chronic diffuse), vascular phase, [Horn] 719—ab
glomerular (chronic), serum cholesterol and atherosclerosis in, [Steiner] 232—ab
glomerular, differentiating various stages; treatment, 1443
glomerular, renal pathologic changes in hypertension and, [Simonds] ★89; [Zeisler] 786—C; (reply) [Simonds] 786—C
proteinuria in pregnancy toxemia, [Dieckmann & Kramer] ★590; (discussion) 598
NEPHRON Co., solution or inhalant N, (Council report) 287
NEPHROSIS: See Kidneys, disease
NERVEASE Headache Powders, 552—BI
NERVES: See also Nervous System; Neuralgia; Neurology; Neuropathy; Reflex; etc.
Deafness: See Otosclerosis
Facial: See Paralysis, facial
gastric secretion inhibited and stimulated by, [Thomas] ★735
laryngeal, paralysis after injecting antitetanic serum, [Floyd] 240—ab
optic atrophy (incipient), tabes dorsalis with, treatment advised, 728
optic, cortical representation of macula [Putnam] 1062—ab
optic disk, pits in, [Greear] 1063—ab
optic, syphilitic primary atrophy, [Moore] 151—ab
Paralysis: See Paralysis
peripheral section, galvanic stimulation of muscle after, Reid's theory, 375—E
regeneration, effects of immobilization and activity on, [Hines] ★515
Sciatic: See Sciatica
specialists, 2nd congress in Tel Aviv, 59
splanchnic block in hypertension, [Albanese] 1257—ab
supply of cervix uteri, 1080
Trigeminal: See Neuralgia
vagus section of pulmonary branches of, for bronchial asthma, 86
NERVOUS SYSTEM: See also Brain; Nerves; Nervous System, Sympathetic; Spinal Cord
central, neural pathways between alimentary tract and, [Sabin] ★506
central, rehabilitation after injuries of, 63
Disease: See Encephalomyelitis; Epilepsy; Meningitis; Sclerosis, amyotrophic lateral
disorders, therapeutic use of cold, [Smith] 1430—ab
disorders, variations in sternum marrow samples, [Reich] 1427—ab
Syphilis: See Neurosyphilis
NERVOUS SYSTEM, SYMPATHETIC, in high altitude flying, [Meier-Müller] 1073—ab
cervical, lesion resulting in paralysis, 1080
Surgery: See Sympathectomy
NEURALGIA, trigeminal, etiology, diagnosis, typhoid vaccine therapy, 658
NEURITIS, polyneuritis due to whooping cough [Santa Maria] 1438—ab
NEUROCIRCULATORY ASTHENIA: See Asthenia
NEUROINE, 552—BI
NEUROLOGY, institute, at Northwestern, Dr. Windle director, 973
surgery, courses for Army doctors, 770
NEURONS, pathways in poliomyelitis, [Sabin] ★506
NEUROPATHY, peripheral, vitamin E therapy, [Blakeslee] 650—ab
Sciatic: See Sciatica
NEUROPSYCHIATRY Institute of Hartford Retreat affiliates with Columbia, 851
Illinois Neuropsychiatric Institute training for nurses, 1406
military, course at Cincinnati, 633
Pan American Congress (3rd), 303
NEUROSIS: See also Medicolegal Abstracts at end of letter M
Cardiac: See Asthenia, neurocirculatory
digestive, in U. S. Army, [Kantor] ★255
irrational fears, 666—ab
war, in Australian forces, [Cooper] 1165—ab
war, in England, [Lewis] 1071—ab
war, Institute for Psychoanalysis discusses, 381
war, narcoanalysis with pentothal for, [Wilde] 483—ab
war, promotion depression, [Flanagan] ★1383
NEUROSYPHILIS: See also Nerves, optic; Dementia Paralytica; Tabes Dorsalis
treatment, [Madsen] 571—ab; [Lomholt] 571—ab

NEUROSYPHILIS—Continued
treatment, artificial fever chemotherapy, [Kendell] 1063—ab; 1341—ab
treatment, bismarsen, [Beerman & others] ★338
NEUTRON RAYS: See Cyclotron
NEUTROPENIA: See also Granulocytopenia
splenic, primary, (new syndrome) [Wiseman] 153—ab
NEVUS, Pigmented Vascular: See Hemangioma
NEW AND NONOFFICIAL REMEDIES: See American Medical Association; and under names of specific products
NEW JERSEY Medical-Surgical Plan, [Scott] 1323—ab
State Society occupies new home, 1327
NEW YORK: See also Columbia; Cornell; Rochester; Westchester
Academy of Medicine, (meetings on historical and cultural medicine) 215; (Seaman fund for research in bacteriology) 382; (annual graduate fortnight) 382; (refresher course in cardiovascular disease) 383; (lectures for the public) 708; (Friday afternoon lectures) 974; (report on oxygen therapy) 975; (new officers) 1407
City cancer clinic closed, 708
City, East Harlem health conditions, 1311—E
Heart Association cardiac programs, 852 (clinics) [Cohn] 1413—C
Physicians Forum, 922—E; 1401—E
Public Health Research Institute (Dr. Julianelle appointed) 1237; (annual report) 1237
World's Fair exhibit at Cleveland Health Museum, 1408
NEWARK museum to exhibit display on nutrition, N. J., 215
NEWBOLD Lecture: See Lectures
NEWBORN: See Infants, Newborn
NEWSPAPERS: See also Journals
Chicago *Sun* also *Daily News*, tributes to physicians in, 699—E
Chicago *Tribune*, outbreak of jaundice in U. S. Army, 46—E; 51
New York *Times*, Gideonse on medical school applicants vs. supply of physicians, 50—E
Philadelphia *Record* health supplements, 842—E
NIACIN: See Acid, nicotinic
NIACINAMIDE: See Acid, nicotinic
NICHOLS (William H) Medal: See Prizes
NICOTINAMIDE: See Acid, nicotinic
NICOTINE: See also Acid, nicotinic; Tobacco
excretion in breast milk and urine from cigaret smoking, [Periman & others] ★1003
NICOTINIC ACID: See Acid
NIGHT BLINDNESS: See also Eyes, accommodation
methods for measuring deficiency of vitamin A, [Butt] ★1033
NIKETHAMIDE, N. N. R., (Breon) 453
NILES, WALTER, portrait, 1049
NILES Lecture: See Lectures
NIPPLE, Paget's disease, [West] 233—ab
*di*NITROTOLUENE, exposure, metabolic disorders from [McGee] 1426—ab
NITROUS OXIDE Anesthesia: See Anesthesia
NOCTURIA: See Urination; Urine incontinence
NODULES: See Lungs
NOMENCLATURE: See Terminology
NOREEN Super Color Rinse, 308—BI
NORRIS, CHARLES, memorial fund, 135
NORRIS, LOUISE, Lash and Brow Coloring, 471—BI
NORTH CENTRAL Medical Conference outgrowth of Northwest Regional Conference, 1150
NORTHWEST Regional Conference revived, 1150
NORTHWESTERN University, (Dr. Windle director of Neurologic Institute) 973
NOSE: See also Nasopharynx; Otolaryngology
Accessory Sinuses: See Sinuses, Nasal
cancer of skin of, roentgen rays and/or radium, plus surgery, [Robinson] 478—ab
Colds: See Colds; Hay Fever
diphtheria, sulfanilamide in [Boissard] 158—ab
discharge (postnasal) from nutrition deficiencies, [Roberts] 73—ab
Hayrin Nasal Filters, 66—BI
Hexadrin, 552—BI
premenstrual obstruction of nostril, 996
septum, anesthetic subperichondrially before submucous resection, 802
signs of blood diseases, 1152
structure in fliers, [Carson] ★5
surgery, reconstructive, use of Z plastics and skin flaps, [Smith] ★352
NOSTRIL: See Nose
NOVOCAIN: See Procaine
NUFFIELD, Lord, (endows social medicine institute at Oxford) 137; 218; (awarded honorary medal of Royal College of Surgeons) 464; 1330; (endows chair of child health at King's College) 710
NUGENT, JOHN J., National Chiropractic Student Loan Fund, 293—E
NUMBNESS and tingling of arms, 249
NUPERCAINE Anesthesia: See Anesthesia
fatal mistake from confusing procaine with, 780
NURSERY, care for children of employed mothers under Lanham Act funds, Conn., 298
home, giardia enteritis in, atabrine cures, [Ormiston] 991—ab
personnel, chest examination, New York City, 632
Scranton mothers in war industries, 215; (correction) 634
NURSES: See also Medicolegal Abstracts at end of letter M
aides for veterans hospitals: requested of American Red Cross, 971
American, club in London, 1052
anesthetic administered by, 324
Army Service: See Medicine and the War; World War
flying, Women's Auxiliary Air Force, England, 636
hospital, anemia from wartime diet, 1052
instructors, American Red Cross appeals for, 971
married, to continue on active duty, 704
parachutes to drop to stricken areas, 210
professional, resurvey, 971
psychiatric training at Illinois Neuropsychiatric Institute, 1406
public health, needed, (correction) 627
shortage, 378; (solving the problem: Dr. Parran's statement) 935
student, recruitment, plan to increase, 772
NURSING: good will tour to South American republics, 772
Industrial: See Industrial Health
National League of Nursing Education recommends accelerated program, 384
to be a closed profession: Royal College of, recommendation, 779
NURSLING: See Infants
NUTRITION: See also Diet; Famine; Food; Infants, feeding; Vitamins
A. M. A. Council on: See American Medical Association
amino acids intravenously for: amigen, [Landesman] 866
Council, England, 855; 1052
deficiency effect on bismuth hepatitis, at San Quentin, [Kulchar & Reynolds] ★343
deficiency, effect on blood, 386
deficiency in otolaryngology, [Roberts] 73—ab
deficiency relation to atherosclerosis and dental caries, [Davis] 68—C
deficiency, relation to atrophy of tongue and oral leukoplakia, [Abels] 74—ab
deficiency, role in liver cirrhosis in alcoholism, 624—E; [György & Goldblatt] 1157—C
deficiency, role in susceptibility to infectious disease, 1309—E
disorder (subtoxic) in infants, [Tobler] 320—ab
exhibit, (Newark Museum) 215; (Cleveland Health Museum) 215
feeding a navy, (ration) [Brown] ★96
feeding an army, (soldier's ration) [Howe] ★93
HANDBOOK OF NUTRITION: (introduction) [McLester] 119: ★945; (role of fat in diet) [Bloor] ★1018; (calories) [Du Bois & Chambers] ★1183; (water and salt requirements) [Talbott] ★1418; (principal mineral elements) [Macy] 120: ★34; (proteins) [Lewis] ★198; (iron) [Heath] ★366; (unusual foods of high nutritive value) [Wilder & Keys] ★529; (trace elements) [Shils & McCollum] ★609; (foods of plant origin) [Maynard] ★692; (preservation of nutritive value of foods in processing) [Kohman] ★831; (feeding healthy infants and children) [Jeans] ★913; (fat soluble vitamins) [Butt] ★1030; (water soluble vitamins) [Elvehjem] ★1388
industrial, advisory service, 975
industrial, joint Council committee, 43
lectures, Mich., 632
National Institute of, Buenos Aires, 466
research new abstracts in *Biological Abstracts*, 854
research, Nutrition Foundation, Inc., 374—E; 1051
spondylosis deformans in relation to [Kemp] 796—ab
status, thiamine clearance as index of, [Melnick] 650—ab
sugar, candy and sweetened carbonated beverages, (Council report) 763
NUTS, nutritive value, [Maynard] ★694
NYCTALOPIA: See Night Blindness

O

OATS and oatmeal, nutritive value, [Wilder & Keys] ★533; [Maynard] ★693
OBERLIN Award: See Prizes
OBESITY: See also Medicolegal Abstracts at end of letter M
claims: Air-Way Reducing Girdle, 146—BI
claims: BonKora, 640—BI
claims: Bull's 1001 Capsules, 552—BI
claims: Marmola, misleading advertising, 1060—MI
OBESITY—Continued
claims: Redus-Aid Candy, 785—BI
claims: Slendoids (or Slendoids Nu-Form Capsules), 1156—BI
claims: Slendotabs, 67—BI
claims: Ward's Posture-Aid Health Belts, Diab Reducers, etc. 785—BI
etiology: probable mixed glandular deficiency in young girl, 88
extraordinary case: 16 instances of persons weighing 700 pounds, 128—E
in eunuchoid individuals, 1262
treatment, milk farms for reducing, 168
OBITUARIES: See List of Deaths at end of letter D
O'BRIEN, E. J., testimony at Pepper hearings, 922—E; 960; (reply) [O'Brien] 1414—C
OBSTETRICIANS, American Association of, (meeting) 61; (elections) 854
Central Association of, suspend meeting, 61
service in Armed forces, Dr. Fishbein's testimony, 958
OBSTETRICS: See also Abortion; Cesarean Section; Labor; Midwives
American Board of, (educational objectives) [Dannreuther] ★169; (examinations) 777; (correction) 1051
Anesthesia in: See Anesthesia
Shock in: See Labor
OCHRONOSIS of sclera and cornea complicating alkaptonuria, [Smith] ★1282
OCCUPATIONAL Dermatoses: See Industrial Dermatoses
Disease: See Industrial Diseases
therapy, British Army school, 977
OCEAN water, chemical analysis, [Bradish & others] ★684 (footnote 7)
ODOFORM, 470—BI
ODOR: See also Smell
in Orr treatment of osteomyelitis, lactose prevents, [Wallis & Dilworth] ★583
on Breath: See Halitosis
OFFICE Buildings: See Buildings
of Civilian Defense: See Medicine and the War
of Procurement and Assignment of Physicians, etc.: See Medicine and the War, Procurement and Assignment Service
Workers: See Industrial Health, workers
OFFICERS: See Army; Medicine and the War; Navy; World War
OHIO: See also Cleveland
State Medical Association resolution on practice of physicians in service, 546
OIDIUM albicans: See Moniliasis
OIL: See also Cod Liver Oil; Fat; Olive Oil
enemas (retention) employing various types of oils, 1350
Floting Oil-of-Castor, 1334—BI
fuel, rationing, (Dr. Bristol's subcommittee report) ★370; 376—E; 456—E; [Dean] 472—C; (N. Y.) 708
Iodized: See Iodized Oil
Mineral: See Petrolatum, liquid
National Oil Products Co., acquires Rare Chemicals, Inc., 852
of peppermint and gastric emptying, [Van Liere] 1253—ab
Oil-of-salt, name now Oil-o-Sol, 470—BI
vegetable oils, nutritive value, [Maynard] ★697
OKLAHOMA City Clinical Society clinical conference, 633
OKRA, nutritive value, [Maynard] ★696
OLBAS Herb Oil, 67—BI
OLD AGE, care of the aged, [Thewlis] ★749
cataract in, [Lindahl] 162—ab
insurance, analysis of H. R. 7534, 296—OS
minimum room temperature for elderly people, fuel oil rationing (Dr. Bristol's subcommittee report) ★371; 376—E; 456—E; [Dean] 472—C
pruritus, androgens and estrogens for, [Feldman] 153—ab
quinine found in home for aged, Calif., 851
thyroid degeneration and premature aging, [Hogg] 236—ab
tuberculosis (pulmonary) undiagnosed in [Miller] 565—ab
withering and dehydration, 16—ab
OLFACTORY Tests: See Smell
OLIVE OIL, dietotherapy in duodenal ulcer, [Shay & others] ★740
ONE Minute Toothache Stick, 552—BI
OOPHORITIS: See Ovary inflammation
OPERATING Room: See Surgery
OPERATIONS: See Surgery; under names of specific organs and diseases
OPHTHALMOLOGIST, role in preventing traffic accidents, [Selling] ★261
size of city able to support, [Harkness] ★327
OPHTHALMOLOGY: See also Blindness; Eyes; Vision; etc.
American Academy of, (meeting) 301; (elections) 854
course, Virginia, 1408
residencies or fellowships, [Harkness] ★328

OPHTHALMOPLEGIA: See Eyes paralysis
OPIUM: See Morphine
OPTIC Atrophy; Disk: See Nerves, optic
OPTOMETRY: See Medicolegal Abstracts at end of letter M
ORAL CAVITY: See Mouth
ORANGEINE, 225—BI
ORANGES, concentrated juice, Mission Brand, 453
nutritive value, [Maynard] ★696
ORATION: See Lectures
ORBIT, foreign bodies (metallic), removal, [Spaeth] ★659
ORCHESTRA: See Physicians, avocations
ORCHIECTOMY: See Testis excision
ORCHITIS: See Testis, inflammation
OREGON Medical Service Association merges with Oregon Physicians' Service, 975
State Medical Society plan for shipyard workers, [Fitzgibbon] ★1139
ORGANIZED Medicine: See American Medical Association; Societies, Medical
ORGANS: See also under names of specific organs as Liver; Stomach
interdependence of function in anesthesia, [Bourne] ★997
ORPHANS: See Children
ORR Treatment: See Osteomyelitis
ORTHOPEDICS, surgery between 2 wars, [Dickson] ★413
OSCILLOMETRY during work in neurocirculatory asthenia, [Christensen] 798—ab
OSINCUP, G., at Pepper hearings on medical manpower, 1401—E
OSMOTIC pressure of plasma proteins, [Zeisler] 786—C; (reply) [Simonds] 786—C
pressure, Van't Hoff's laws, 685—ab
OSSIFICATION: See Calcification (cross reference); Bones
OSTEOARTHRITIS, tuberculous, of shoulder, Volkmann's dry caries in [Baila] 1438—ab
OSTEODYSTROPHY, renal, urinary obstruction in children [Harrison] 317—ab
OSTEOMYELITIS treatment, chemotherapy [Wilensky] 565—ab
treatment: Durante-roentgen using iodine, 140
treatment, Orr, odor in, lactose prevents, [Wallis & Dilworth] ★583
treatment, subperiosteal resection; plugging bone defects, [Henschen] 1437—ab
OSTEOPATHY: See Medicolegal Abstracts at end of letter M
OSTEOPOIKILOSIS complicating cancer, [Ritterhoff] 1428—ab
OSTEOTOMY for genu recurvatum after poliomyelitis, [Irwin] ★277
OTITIS MEDIA, cerebellar abscess, [Asherson] 1436—ab
in children; survey; also effect of sulfonamides (sulfathiazole) [De Sanctis & others] ★1087
suppurative, with screw worms infestation, chloroform for, [Turnbull & Franklin] ★117
OTOLARYNGOLOGY, American Academy of (meeting) 301; (elections) 854
nutrition deficiencies in, [Roberts] 73—ab
postgraduate work; cities able to support specialist; residencies [Harkness] ★327
problems in fliers, [Carson] ★4
radium treatment for office practice of 658; (reply) 996
OTOSCLEROSIS, treatment, modified fenestration technic, [Shambaugh] 397—ab
OVARY: See also Corpus Luteum: Ovulation
inflammation, oophoritis from mumps, 166
tumor, fibroma, pleural effusion and ascites with: Meigs's syndrome, [Ritvo] 718—ab
tumor registry, American Gynecological Society sponsors [Novak & others] 1057—C
OVERWEIGHT: See Obesity
OVULATION, electrometric timing, [Langman] 564—ab
leukorrhea with, 802
"Safe Period": See Menstruation
OXFORD University: See University of Oxford
OXIDATION: See Antioxidants
OXYGEN, Carbon Dioxide Mixture: See Carbon Dioxide
Consumption: See also Metabolism, basal
consumption of brain during anesthesia, especially cyclopropane, 576
deficiency, chronic mountain sickness (chronic anoxia) [Hurtado] ★1278
deficiency, operating room deaths, [Turner] 648—ab
Linde Oxygen Therapy Regulator, 535
subcutaneous, for rheumatism, arthritis, other painful conditions, 165
therapy, New York Academy report, 975
use of with intravenous anesthesia, [Bishop & Rudder] ★807
OXYURIASIS treatment, gentian violet or hexylresorcinol enemas, 166
OYSTERS, nutritive value, [Wilder & Keys] ★531
OZONE, merits as aerial disinfectant, [Elford] 319—ab

P

PACHANGA Mineral Water, 552—BI
PACIFIC War: See World War II
PACKARD Lecture: See Lectures
PAGET'S Disease: See Nipple
PAIN: See also Backache; Headache; Neuralgia; Sciatica; etc. under organs, region or disease affected as Abdomen; Poliomyelitis; Shoulder; Thorax
Allay, 470—BI
Lightning: See Tabes Dorsalis
pathways around larynx from infected tooth, 656
Precordial: See Angina Pectoris; Arteries, coronary; Asthenia, neurocirculatory; Thrombosis, coronary
Relief of: See also Anesthesia; Sympathectomy
relief of, cold for, [Smith] 1430—ab
relief of, freezing with ethyl chloride, [Henry] 1256—ab
relief of, Merit Short Wave Diathermy, 1156—BI
relief of, subcutaneous oxygen for, 165
relief of, Sulfuraid-21, 1156—BI
relief of, United Short Wave Diathermy, 1156—BI
sensitivity test: Hollander's use of metal grater on sphygmomanometer cuff, 249
threshold, morphine and prostigmine methylsulfate effect on, [Andrews] ★525
PAINTING: See also Art
legs in place of silk hose harmful? 410
PALESTINE, medical news from, 64
tuberculosis incidence in Emek Jezreel, 303
PAN AMERICAN: See also Inter-American; Latin American
code for preventing blindness, 140
Congress of Endocrinology, 549; 976
Neuropsychiatric Congress (3rd), 303
Sanitary Bureau clearing house for information and consultation, 978
Sanitary Conference, (11th) 62; (resolution on vital statistics) 778; 978; (malaria discussed at) 1411
PANCOAST Lecture: See Lectures
PANCREAS: See also Diabetes Mellitus
cancer, diagnosis, [Pratt] ★181
disease, Billings Lecture [Pratt] ★175
disease, diagnosis; treatment, [Cunha] 1429—ab
fibrocystic disease, [Daniel] 396—ab
functional alterations in duodenal ulcers, [Castex] 1437—ab
Inflammation: See Pancreatitis
roentgen examination, [Holm] 161—ab
Secretion: See Insulin
PANCREATITIS, acute: elevated urinary diastase test, [Lampson] 1162—ab
PANDICULATOR Co., 1244—BI
PANEL Discussion at A. M. A. meeting: See Peptic Ulcer; Poliomyelitis
PANTOTHENIC Acid: See Acid
advertisers should conserve! [Smith] 1414—C
PAPAVERINE, clinical uses in heart disease, [Elek & Katz] ★434
plus atropine in reflex pulmonary atelectasis, [de Takats] ★686
PAPER: See also Articles; Newspapers
conservation vs. waste by advertisers, [Smith] 1414—C
rationing, smaller journals, England, 218
PARACHUTE jumps (delayed) by Starnes, 1311—E
PARALYSIS: See also Hemiplegia; Medicolegal Abstracts at end of letter M
facial (peripheral) in hypertension, [Merwarth] 649—ab
facial (unilateral), treated by fixing inactive distorted muscles with fascia strips, 1170
General: See Dementia Paralytica
Infantile: See Poliomyelitis
Ocular: See Eyes
of laryngeal nerve and brachial plexus after injecting antitetanic serum, [Floyd] 240—ab
result of lesion of cervical sympathetic, 1080
PARA-AMINOBENZOIC Acid: See Acid, *p*-aminobenzoic
PARANASAL Sinuses: See Sinuses, Nasal
PARAPSORIASIS, or pityriasis lichenoides, 88
PARASITES, Intestinal: See Intestines
PARATHYROID, humoral control of internal secretion, 456—E
hyperparathyroidism, [Cope] 863—ab
hyperparathyroidism (renal), urinary obstruction in children, [Harrison] 317—ab
Hypoparathyroidism: See also Pseudohypoparathyroidism
hypoparathyroidism, didydrotachysterol or vitamin D for, 411
tetany and pregnancy: effect of calcium lactate on fetus; suggest dihydrotachysterol or vitamin D_2, 87
PARATYPHOID, immunization, Vi antibody and various vaccines, [Climie] 1345—ab
PARENCHYMA: See under organ affected
PARENT'S *Magazine*: See Journals
PARENTHOOD; PARENTS: See Birth Control; Families; Maternity
PARESIS: See Dementia Paralytica
PARKELP and Parkelp Tablets, 67—BI
PARKER, Priscilla Parker Breath Correcting Lipstick, 641—BI
PARMLY Foundation: See Foundations
PAROTID GLAND: See also Parotitis
tumors, adenolymphoma, [Plaut] 234—ab
tumors, mixed, [Hemplemann] 234—ab
PAROTITIS, EPIDEMIC (Mumps), oophoritis from, 166
suppurative, roentgen therapy, [McCormick] 235—ab
surgical treatment of severe orchitis in, [Wesselhoeft] 864—ab
PAROTITIS, SURGICAL, acute, [Coughlin] 793—ab
complicating rectal resection, [Jones] ★164
PARRAN, THOMAS, rationing physicians for armed forces and civilians, 766—E; ★1224
statement at Pepper hearing, 840—E; 922—E; 933
visits Mexico, 466
PARSLEY, nutritive value, [Maynard] ★696
PARTNERSHIP: See Medicolegal Abstracts at end of letter M
PARTURITION: See Labor
PASTEURELLA tularensis: See Tularemia
PATELLA, dislocation (recurrent), 249
PATENTS: See Medicolegal Abstracts at end of letter M
PATERNITY: See Medicolegal Abstracts at end of letter M
PATHOLOGY, *American Journal of Clinical Pathology*, new editor, Dr. Davidsohn, 1051
changing concepts: J. P. Simonds in Christian Fenger Lecture, 375—E
definition of, at Yale, [Perry] 983—C
"there was no pathology," [Fox] 787—C
PATIENTS: See Disease; Hospitals; Medical Service; Surgery; under names of specific diseases
Transport of: See Ambulances
PATRIOT Croco Pads for permanent waving, 308—BI
PAULETTE Hair Dressing, 471—BI
PAULING, LIMUS, artificial antibodies; priority of Dr. Frank M. Wood's work in 1912, [Wood] 309—C
PEACHES, Gerber's Strained, 697
nutritive value, [Maynard] ★696
PEANUT butter mixed with brewers' yeast; practical use as food, [Wilder & Keys] ★532
nutritive value, [Maynard] ★694
PEARL HARBOR: See World War II
PEAS, ascorbic acid values, effect of room temperature, [Kohman] ★833
PEDIATRICS: See also Children; Infants
American Academy of, (meeting) 634; 1328; (elections) 1238
American Board of, (examination) 464; (abolishes group I) 1150
Mead Johnson Awards in, winners of, 1328
Mexican Pediatric Society, (new officers) 466
PEGGY: See Moran; Sage
PELMANISM, 1334—BI
PEMPHIGUS: See also Epidermolysis bullosa
vulgaris, primary lesions, [Oppenheim] 478—ab
PENICILLIN, antibacterial powers of a mold, 779
in cultivation of acne bacillus, [Craddock] 82—ab
purified, highly, biologic properties, [Florey] 482—ab
PENIS: See also Phimosis
erections frequent and glans greatly enlarged in 6 year old, 492
erections (nocturnal) in man of 57, 656
plastic induration of corpora cavernosa; Peyronie's disease, 728
ulcer due to Endameba histolytica; carbarsone cures, [Hermann & Berman] ★827
PENNSYLVANIA: See also Philadelphia; Pittsburgh
Medical Service Association, [Perry] 1323—ab
Psychiatric Society, 1050
Tuberculosis Society 60, 300
PENTOBARBITAL: See also Anesthesia
Sodium and Benzyl Alcohol N. N. R., (Lakeside), 763
PENTOSURIA: See Urine
PENTOTHAL sodium affects oculocardiac reflex and parasympathetic, [Bishop & Rudder] ★809
sodium, intravenous anesthesia in surgery in World War II, [Fulton, Hingson] 810—ab
sodium, intravenous anesthesia with, [Bishop & Rudder] ★807; (effect on oculocardiac reflex and parasympathetic) ★809
with narcoanalysis for war neuroses, [Wilde] 483—ab
PEPPER, CLAUDE, hearings on medical manpower, 766—E; 840—E; 922—E; 927; (Senator Millikin speaks for the record in behalf of A. M. A.) 1042—E; (reply) [O'Brien] 1414—C; 1401—E
PEPPERMINT, Oil of: See Oil
PEPPERS, nutritive value, [Maynard] ★696
PEPTIC ULCER, acidity of ulcer bearing area in duodenum, [Berk] 987—ab
cancer in prepyloric ulcers, [Kirklin & MacCarty] ★733
cancer of stomach in relation to, [Judd] 1344—ab

PEPTIC ULCER—Continued
duodenal, pain in chest confused with, [Harrison] ★522
duodenal, pancreas function altered in, [Castex] 1437—ab
duodenal stenosing, [Allen] ★493
etiologic evidence in man who fed himself through fistula stoma, [Wolf & Wolff] ★670
etiology, psychosomatic correlations of duodenal, [Morrison & Feldman] ★738
etiology, traumatic duodenal; symptoms immediately after local injury, 1330
etiology, will hydrochloric acid administration produce? 657
gastric, [Pollard] 1067—ab
hemorrhage, medicosurgical treatment; age factor, [Meyer & others] ★813
hemorrhage, 151 fatalities, [Blackford & Allen] ★811
in the Army, [Kantor] ★254; [Chamberlin] 476—ab
in workers, absenteeism; relation to holidays, [McGee & Creger] ★1367
motion picture produced at Lahey Clinic, 216
obstructed, [Howland] ★818; [Wilkinson] 1425—ab
panel discussion on, [Kirklin & MacCarty] ★733; [Thomas] ★735; [Morrison & Feldman] ★738; [Shay & others] ★740; [Winkelstein & others] ★743; [Blackford & Allen] ★811; [Meyer & others] ★813; [Hinton & Church] ★816; [Rowland] ★818; [Kiefer] ★819; (discussion) 824; (correction on discussion by Dr. Winkelstein) 1238
surgical treatment, Crile's bilateral adrenal denervation, 411
surgical treatment, gastrectomy (partial and subtotal) for jejunal ulcers and recurrent hemorrhages after, [Kiefer] ★819
surgical treatment, resection for duodenal and gastrojejunal ulcer; effect on acidity, [Friedell & others] ★666
surgical treatment, selecting operation in gastric and duodenal ulcer, [Hinton & Church] ★816
surgical treatment, subtotal gastrectomy technic, [Allen] ★493
Treatment: See also under other subheads
treatment, Aluminum phosphate gel, N. N. R., (description) 697; (Wyeth's Phosphaljel) 697
treatment, diet, in duodenal ulcer; use of milk, cream and olive oil, [Shay & others] ★740
treatment, intragastric drip, apparatus for and technic; use of milk with sodium bicarbonate or gels of aluminum hydroxide and phosphate, [Winkelstein & others] ★743; [Cornell] 1426—ab
treatment of juxtapyloric ulcer with obstruction; aluminum hydroxide drip plus Wangensteen aspirator, [Rowland] ★818
PEPTIDES, proteins in nutrition, [Lewis] ★198
PERABRODIL: See Spinal Canal, roentgenography
PERCAINE: See Nupercaine
PERIADENITIS mucosa necrotica recurrens or lichen planus, (reply) [Kile] 492
PERIARTERITIS nodosa, [Banowitch] 153—ab
nodosa from serum sickness and sulfonamides, [Rich] 1249—ab
PERICARDITIS confused with coronary disease, [Harrison] ★520
therapeutic, induced in coronary insufficiency, [Rakov] 231—ab
PERICARDIUM, tumors, teratoma, surgical removal successful, [Beck] 397—ab
PERICHONDRIUM, subperichondrial injection of anesthetic before submucous resection, 802
PERIODICALS: See Journals
PERIOSTEUM, subperiosteal resection for osteomyelitis, [Henschen] 1437—ab
PERITONEUM, effusions, cancer cell cultures of, [Hengstmann] 1258—ab
Sulfonamides implanted in: See Abdomen
Tuberculosis: See Peritonitis, tuberculous
PERITONITIS, complicating one-stage rectal resection, [Jones] ★104
pneumococcus, serums for, [Finland] ★1306
postoperative, intraperitoneal vaccine injection to prevent, [Dixon] 1248—ab
postoperative, plasma and hydrolized protein (amigen) for, [Elman] ★1176
treatment, ultraviolet blood irradiation, [Miley] 1063—ab
tuberculous, in women, roentgen therapy, [Schmiemann] 321—ab
tuberculous, ultraviolet ray therapy, (Council report) ★622; ★623
PERMANENT Waving: See Hair
PERMEABILITY: See Osmotic pressure; Placenta; Skin absorption
PERNICIOUS ANEMIA: See Anemia, Pernicious
PEROXIDASE, action in blood plasma in acute infections, [Möllerström] 487—ab
reaction of human milk, beriberi heart in infant, [Rascoff] ★1292
PEROXIDE: See Hydrogen peroxide; Zinc peroxide
PERSONALITY changes in children after pertussis, [Lurie & Levy] ★890
promotion depression, [Flanagan] ★1383
PERSPIR-ATOR, 146—BI
PERSPIRATION: See Sweat
PERTUSSIS: See Whooping Cough
PERU, national formulary in, 857
PERVITIN a necessity for German motorized troops to increase performance, 1314
PESSARY, ball, also Menge, Gellhorn's modification or Emmer-Gellhorn pessary, 871
rubber, soft, intracervical, used as contraceptive, 412
PETIT MAL: See Epilepsy
PETROLATUM, liquid, laxatives relation to anorectal infections, [Thiele] 1343—ab
Treatment: See Burns
PETROLEUM Products: See Gasoline
PEYRONIE'S Disease: See Penis
PFAHLER, GEORGE E., (science building named for) 853; (portrait) 1050
PHAGE: See Bacteriophage
PHAGOCYTOSIS by leukocytes, [Reed] 405—ab
PHARMACISTS: See Medicolegal Abstracts at end of letter M
aid venereal disease control in Philadelphia, (various authors) 882—ab; 883—ab
government urgently needs quinine, 377
say physicians should not dispense medicine, England, 780
PHARMACOPEIA: See also Formulary
U. S., XII, monograph on totaquine to appear in supplement of, 1043
U. S., XII, use of bulk ether in anesthesia, [Gold] ★44; 49—E
PHARMACY, A. M. A. Council on: See American Medical Association
Practice Acts: See also Medicolegal Abstracts at end of letter M
PHARYNGOMAXILLARY space, infection of, [Orton] ★876
PHARYNX: See also Nasopharynx
relation to flying, [Carson] ★6
PHEDRACIN hydrochloride raises blood pressure, [Elmes] 722—ab
PHENOBARBITAL, functional bowel distress after poliomyelitis, 167
N. N. R. (tablets: Breon) 453
plus ephedrine orally, 2 hours after epinephrine injection [Engelsher] 1157—C
Renesol, 1156—BI
Sodium and Benzyl Alcohol N. N. R., (Lakeside) 763
toxic eruptions from, [Moss] 1062—ab
PHENOL, fumigation and humidity; 625—E
PHEOCHROMOCYTOMA, adrenalin producing, of adrenal, [Kirshbaum] 234—ab
with hypermetabolism, [McCullagh] 234—ab
PHILADELPHIA County Medical Society (Aid Association report on physicians' aid) 853; (graduate course in industrial medicine) 1149
Record health supplements, 842—E
PHILLIPS, ARTHUR OSBORNE, surgical impostor, 128—E; 145—BI; 461
PHIMOSIS in children, [Carbonell Salazar] 83—ab
PHLEBITIS: See also Pylephlebitis; Thrombophlebitis
recurrent, 576
PHLEBOGRAPHY: See Veins
PHLEGMASIA alba dolens, antiprothrombin therapy (AP), 1040—E
PHOLEDRINE, prevents operative shock, [Landau] 1165—ab
raises blood pressure, [Elmes] 722—ab
PHOSPHATASE in Blood: See Blood
PHOSPHORUS, bomb, new German, 636
excretion in thyrotoxicosis and myxedema, [Robertson] 242—ab
burns, sodium bicarbonate solution for [Jones] 1256—ab
metabolic balances, intake; retention [Macy] ★37
PHOTOELECTRIC meter to register venous pulse and pupillary reflexes [Matthes] 407—ab
PHOTOGRAPHY: See also Moving Pictures
Biological Photographic Association, Inc., 61
PHOTOSENSITIVITY: See Light sensitivity
PHOTOSYNTHESIS, utilization of carbon dioxide by animal tissues, 454—E
PHYSICAL EDUCATION: See Athletics
PHYSICAL EXAMINATION: See also Physical Fitness; Medicolegal Abstracts at end of letter M
Industrial: See Industrial Health
of applicants for aid under dependent children's fund, physicians to be paid for, 135
of Medical Society of District of Columbia members, 381
of Recruits: See Medicine and the War
school health tests, regulations, N. Y., 300
status of NYA youth on out of school work programs, 634; 773—OS
PHYSICAL EXERCISE: See Exercise
PHYSICAL FITNESS, Wetzel's grid for evaluating, 657
health and education, [Rowntree] ★1229
PHYSICAL HARDENING program, at U. of Michigan, 382
PHYSICAL MEDICINE: See also Physical Therapy
American Academy of, (meeting) 384
PHYSICAL THERAPY: See also Cyclotron; Diathermy; Radium; Roentgen Therapy; Ultraviolet Rays; etc.; under names of specific diseases and organs
A. M. A. Council on: See American Medical Association
American Congress of, (awards gold key to Miss Kenny) 384; (election) 854; (correction) 976
American Physiotherapy Association forms rehabilitation council, 633
role in early treatment of poliomyelitis, [McCarroll] ★517; [Hellebrandt] 787—C; [Pohl] 1157—C; [Kenny] 1335—C
technicians schools; (Ind.) 298; (approved by A.M.A.) 972—OS
PHYSICIANS: See also Medical Jurisprudence; Medical Service; Surgeons; etc.
activities, Philadelphia committee named to conserve; number of meetings reduced, 136
Alien: See Physicians, foreign
American: See World War II
American College of, (lectures for medical officers) 546; (cancels 1943 meeting) 1150; (regional meeting) 1150
appeals procedure for, 1132
Army need for; how to volunteer; some "don'ts," 455—E; 457
automobile identification plates for use in blackouts, 136
automobiles: gasoline and tire rationing, 700—E; [Richards] 701; (Taylor] 1234—ab; [West] 1235—ab
automobiles, operating cars during blackouts: Army blackout lighting devices, 248
avocations, Doctors' Orchestra suspends activities, O., 1237
avocations, hobby show, N. Y., 1149
Awards to: See Prizes
British: See World War II
Commissions (Military): See Medicine and the War
Community Doctor: See Medical Service
Courses for: See Education, Medical, graduate
Deaths: See Deaths at end of letter D
dentists in training to aid, 543
Directory of: See American Medical Directory; Directory
"Dislocated": See Licensure
Education of: See Education, Medical
Ethics: See Ethics, Medical
Fees: See Fees
Fellowships for: See Fellowships
for emergency base hospitals, 209
foreign, alien physicians as commissioned officers in U. S. Army and U. S. Navy, 119: 264—E; 120:703
foreign, Japanese, sentenced for abortion, Arizona, 851
foreign, use of émigré, release by National Committee for Resettlement of, 1134
fuel oil rationing, 456—E; [Dean] 472—C
German, conference of, 1313
Graduate Work: See Education, Medical
Heroic War Service: See Heroes; World War II
Hospital: See Hospitals
Impostors Preying on: See Impostors
in Industrial Practice: See Industrial Health
in politics, (Dr. St. Clair) 61; (Dr. Judd) 1327
in politics, Whitehouse on rising generation in medicine, 754—ab; [Gimbel] 1336—C
in Selective Service: See Medicine and the War
Income: See Fees; Tax, income
indigent, report by Aid Association of Philadelphia County Medical Society, 853
Industrial: See Industrial Health
Lectures Honoring: See Lectures
Licensing: See Licensure
Malpractice: See Malpractice
Medals for: See Prizes
Medical Responsibility: See Malpractice; Medical Jurisprudence
Military Service: See Medicine and the War; World War II
monument to; highway marker, honors Dr. S. Stachwell, 546
Negro: See Negroes
New York Physicians Forum, 922—E; 1401—E
Office of Procurement and Assignment of: See Medicine and the War
parachutes to drop doctors to stricken areas, 210
pardoned: Dr. Paul B. Arbogast, 1147
Portraits: See Portraits
positions open, (Calif.) 381; (Pa.) 1408
practice of those in military service resolution of Ohio State Medical Association 546
Practicing: See also Physicians, supply
practicing, continuation courses for, ★554; ★1415
Prisoners of War: See Prisoners
Prizes for: See Prizes

PHYSICIANS—Continued
Procurement and Assignment: See Medicine and the War
rationing of, Parran on, 840—E; 933; ★1224
recommendations, special school programs adapted to, N. Y., 463
Registration: See Licensure
Residencies: See Residencies
Royal College of, Moxon Medal, 464
saddle bag 150 years old given to Oregon Woman's Auxiliary, 850
self-sacrifice for the war effort unappreciated, 1308—E
sentence Dr. Brandenberg accused of altering fingerprints, 135
should not dispense medicines, pharmacists say, England, 780
Specialization by: See Specialties
status of, in Germany, 138
supply and distribution in Illinois, [Camp] 1234—ab
supply, distribution, [Harkness] ★328
supply, effect of war on civilian practice, England, 710
supply, for shipyard workers, Oregon, [Fitzgibbon] 1139—ab
supply (future) vs. medical school admissions; Gideonse in New York *Times*, 50—E
supply, Germany's lack of doctors, 848; 855; 971; [Parran] ★1226
supply in England for armed forces and civilians, [Parran] ★1226
supply, Pepper hearings on medical manpower 766—E; 840—E; 922—E; 927; 1398—E; (reply) [O'Brien] 1414—C; 1401—E
supply, personnel problems of Surgeon General of Army, [Hillman] ★1140
supply, plans to meet need where shortage has developed, 458
supply, postwar redistribution, [McIntire] ★1138
supply, shortage for civilians, [Barker] ★1230; [Rowntree] ★1228
supply, shortage, Kentucky, [McCormack] ★1143
supply, shortage, Texas [Taylor] 1234—ab
supply, war problems and medicine, [Lahey] ★1138; ★1142 [Hillman] ★1140; [Parran] ★1225; [Rowntree] ★1226; ★1227
Swindling: See Impostors
Testimony: See Medicolegal Abstracts at end of letter M
those over 45 willing to serve their country, 1399—E
tributes to in Chicago newspapers, 699—E
veteran, (50 years' practice, Pa.) 383; 1408 (Dr. Lawson 93rd birthday) 707
victory tax: those who are employers and employees, (Bureau report), 1143—OS
want doctors trained in skiing and mountain climbing, 704
War Service: See Medicine and the War; World War
women, American Medical Women's Association meeting, 1051; (cancel meeting) 1409
women, Jacobi (Mary Putnam) Fellowship, 1238
women, one in Peru and 300 in Chile, 857
women, raise $2,000 for relief fund, 129
women reservists at Naval Medical Center, 1133
PHYSICS, students urged to register, 1134
PHYSIOLOGISTS, aviation, 377; 541; 1045; 1133
PHYSIOLOGY, interdependence of function in anesthesia, [Bourne] ★997
of delayed parachute jumps; free fall through air, 1311—E
PHYSIOTHERAPY: See Physical Therapy
PHYSIQUE: See also Constitution
Control Course, 225—BI
PHYSOSTIGMINE salicylate, action on intestinal motility, [Puestow] ★906
PICKLING, fermentation, effect on vitamin content, [Kohman] ★838
PICTURE: See Art; Moving Pictures; Portraits
PIGMENTATION: See Eyes
PIGS: See Hogs
PILES: See Hemorrhoids
PILI TORTI Hereditaria: See Hair
PILOTS: See Aviation
PIMPLES: See Acne
PINE Needle Oil Soap, 308—BI
PINEAPPLES, nutritive value, [Maynard] ★696
PINK, LEWIS H., criticism of medical society plans, 379—OS
"PINK" Eye: See Conjunctivitis
Ointment, 641—BI
PINWORMS: See Oxyuriasis
PITRESSIN, action on intestinal motility, [Puestow] ★906; ★907
treatment in diabetes insipidus, [Anderson] 1066—ab
PITTSBURGH, Better Business Bureau exposes insurance advertising, 292—E
PITUITARY, anterior and posterior, hormones relation to renal function, [Taylor] ★598
Anterior Pituitary Like Substance: See Gonadotropins, chorionic
cachexia, Simmonds' disease, thyroid extract, desoxycorticosterone, salt and testosterone for, [Williams] 1250—ab
PITUITARY—Continued
Disorder: See Acromegaly; Diabetes Insipidus
in anaphylaxis and allergy, [Farmer] 648—ab
obesity and probable mixed glandular deficiency in young girl, 88
Posterior: See also Pitressin
posterior, solution, action on intestinal motility, [Puestow] ★906; ★907
thyroid interrelationship, [Severinghaus] 569—ab
tumors, adenoma (possible), 250
PITYRIASIS lichenoides chronica (possible), on chest, abdomen and back, 88
PIXACOL, 1334—BI
PLACENTA, abruption of, proteinuria in pregnancy toxemia, [Dieckmann & Kramer] ★590; (discussion) 598
expulsion; dystocia dystrophia syndrome, [Williams] 1345—ab
hormones originating in relation to pregnacy toxemias, [Taylor] ★595
ischemia, and eclamptic phenomenon, [Young] 484—ab
permeability, malaria in young infant, [Reisman] 1068—ab
permeability, myasthenia in newborn; [Strickroot & others] ★1207
permeability, sulfonamide toxicity in newborn, [Ginzler] 232—ab
previa, 410
retained, Majon-Gabastou method of injecting umbilical vein, [Shannon] 157—ab
PLAGUE and tame rabbits, 872
epidemic in Nairobi, [Plum] 241—ab
infection, Montana, 382
pathology, [Vint] 241—ab
vaccine, [Dowdeswell] 241—ab
PLANES: See Aviation
PLANKTON, use as food, [Wilder & Keys] ★532
PLANNED Parenthood: See Birth Control
PLANTAGO Seed: See Psyllium Seed
PLANTS: See also Ragweed; Rhus; etc.
foods of plant origin, [Maynard] ★692
growth, thiamine in relation to; also treat seeds chemically before planting, 207—E
pathogens, genetic variation in, 545
PLASMA: See subheads under Blood; Blood Transfusion; Serum
PLASMOCHIN Treatment: See Malaria
PLASTER Cast: See Cast
PLASTIC Surgery: See Surgery
PLASTICS, device for giving morphine, 1133
self-sterilizing, for food containers, drinking cups, etc., 127—E
PLAY: See Recreation
PLEURA, effusions, cancer cell cultures of, [Hengstmann] 1258—ab
effusion, Meigs's syndrome, [Ritvo] 718—ab
PLEURISY, Purulent: See Empyema
tuberculous, ultraviolet therapy, (Council report) ★621; ★623
PLOTZ, HARRY, on commission to study typhus in war zones, 1044
PLUMBER in civilian defense: training course at Michigan, 970
PLUMBISM: See Lead poisoning
PNEUMOCOCCUS, antibody response, sulfonamides fail to interfere, [Bukantz] 68—C
antiserums (higher types), [Finland] ★1294
artificial antibodies; priority of Dr. Frank M. Wood's work, [Wood] 309—C
Meningitis: See Meningitis
type XXVIII endocarditis, recovery under sulfadiazine, sulfathiazole and rabbit antiserum, [Blumberg & others] ★607
types in pneumonia and healthy carriers, [Finland] ★1297; ★1299
PNEUMOCONIOSIS: See Pneumonoconiosis
PNEUMOENCEPHALOGRAPHY: See Brain
PNEUMONECTOMY: See Lungs, surgery
PNEUMONIA: See also Bronchopneumonia; Medicolegal Abstracts at end of letter M
atypical "virus," etiology of, [Reimann] 1431—ab
complication of silicosis? [Pierpont] 1433—ab
control program, changes urged, Va., 383
etiology, Trichomonas buccalis, [Glaubach & Guller] ★280
in children, atelectasis after, [Wyatt] 151—ab
Loughney's Dependable Guide to Self-Help, 640—BI
mortality in husbands and wives, [Ciocco] 1069—ab
mortality rate declining, 456—E
mortality rate relation to serum treatment, [Finland] ★1299; ★1301
staphylococcic, during influenza epidemic, [Finland] 719—ab
treatment, antiserums ("higher" types) also with sulfonamides, [Finland] ★1300
treatment, sulfadiazine, [Ensworth] 477—ab
treatment, sulfadiazine discontinued, N. Y., 546; 775
treatment, sulfamethazine, [Macartney] 241—ab
treatment, sulfathiazole, [Rosenthal] 77—ab
PNEUMONOCONIOSIS, silicosis and heart, 326; (reply) [Enzer] 872
silicosis, is pneumonia a complication of? [Pierpont] 1433—ab
PNEUMOTHORAX, spontaneous, [Ornstein] 79—ab
POISON Gas: See Gas warfare
Ivy: See Rhus
POISONING: See also under names of specific substances as Lead; Mercury; etc.; Medicolegal Abstracts at end of letter M
deaths at Oregon State Hospital due to, 1050
Industrial: See Industrial Dermatoses; Industrial Diseases
POLIOMYELITIS, acute, cases, follow-up, Conn., 381
acute, forced spinal drainage in; Retan technic, 290—E; [Kuble] 714—C
acute stage, pain and tenderness in, [Ober] ★514
atrophy in skeletal muscle, [Solandt] ★511
consultation service, Mich., 59
effects of immobilization and activity on neuromuscular regeneration, [Hines] ★515
epidemic and shifts in wartime populations, 767—E
epidemic, closes schools, Havana, 464
epidemic, housing project quarantined for, New Jersey, 60; 215; 382
epidemic, incubation period, [Casey] ★805
functional bowel distress after, 167
genu recurvatum after; operative correction for hyperextension, [Irwin] ★277
National Foundation of Infantile Paralysis, (Dr. Lavan joins) 546; (annual meeting) 975; (wool available for Kenny treatment) 975; (advisory medical committee) 1409
panel discussion on, [Sabin] ★506; [Solandt] ★511; [Ober] ★514; [Hines]★515; [McCarroll] ★517; [McLoughlin] 983—C
pathology and pathogenesis; neural pathways (alimentary-central nervous system) [Sabin] ★506
President's Birthday Fund for, 61; 1328
quarantine, (N. J.) 60; 135; 215; 382
spinal cords from fatal or old cases wanted, [Elliott] 226—C
tonsillectomy and, [Toomey] 156—ab
treatment, convalescent serum, 1261
treatment, early, role of physical therapy, [McCarroll] ★517; [Hellebrandt] 787—C; [Pohl] 1157—C; [Kenny] 1335—C
treatment, Kenny, (Sheltering Arms Hospital for, Minneapolis) 59; [Steindler] 154—ab; (health center turned over to Sister Kenny) 299; (Sister Kenny honored at opening of unit) 382; [Ober] ★514; [McCarroll] ★517; (centers for teaching) 777; (forum, N. Y.) 974; (wool for use in available) 975; (Kenny Institute, Minn.) 1148; [Pohl] 1157—C; 1261; [Kenny] 1335—C
treatment, recent changes, [Steindler] 154—ab
treatment, respirators; how to use them, [McLoughlin] 154—ab
treatment, sulfapyridine, (grams instead of grains) [Miller] (correction) 162—ab
virus, crystallized, 1218—E
POLITICS, Physicians in: See Physicians in politics
POLLENS: See Hay Fever
POLYCYTHEMIA, amphetamine sulfate produces, [Davis] 718—ab
cobalt, [Shils & McCollum] ★612
effect of dicoumarin, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Butsch & Stewart] ★1025
hemoglobin production factors in liver, [Whipple] 863—ab
POLYMORPHONUCLEARS: See Leukocytes
POLYNEURITIS: See Neuritis
POLYSACCHARIDES as vehicle of group specific properties, [Kossjakow] 160—ab
POMPEIAN Milk Massage Cream, 391—BI
PONTOCAINE Hydrochloride: See Anesthesia
POPULATION: See also Census; Vital Statistics
total, of Belgium under Hitler's rule, 138
wartime, shifts in, and epidemics, 767—E
PORK: See Hogs; Trichinosis
PORTAL VEIN: See also Pylephlebitis
sulfanilamide concentration in, [Pearce] 982—C
thrombosis in portal hypertension, [Reich] 648—ab
PORTER Lectures: See Lectures
PORTRAITS: See also under names of individuals as Carter; Knight
Ciba presents to Naval Medical Center and to Army Medical Library, 1133
POSITION: See Posture
POSTGRADUATE Work: See Education, Medical, graduate
POSTOPERATIVE: See Surgery
Shock: See Shock
POSTURE, types of hypotension, [Durant] 568—ab
head down-feet up position to measure output of blood in veins of arms, [Henderson] 1414—C
POTASSIUM as tissue diuretic, [Bansi] 653—ab
bitartrate (cream of tartar) domestic supply, 294

POTASSIUM—Continued
iodide for syphilis with tuberculosis, 802
iodide plus atropine for reflex pulmonary atelectasis, [Schulman] 1157—C
metabolic balances; intake; retention, [Macy] ★39
Tartrate: See Antimony potassium tartrate
Thiocyanate Treatment: See Blood Pressure, high
POTATOES, dried, for troops at the front, 635
effect of storage and cooking on vitamin C, etc., [Kohman] ★832; ★834
nutritive value, [Maynard] ★694
sweet, nutritive value, [Wilder & Keys] ★533
POVERTY: See Physicians, indigent
POWDER: See Dusting Powder
POWER-Wilder-Cutler Sodium Chloride Restriction Test: See Sodium chloride
PRACTITIONER: See Physicians, practicing
Illegal: See under names of individuals
PRECIPITINS, artificial antibodies; priority of Dr. F. M. Wood's work, [Wood] 309—C
PREECLAMPSIA: See Eclampsia
PREGNANCY: See also Abortion; Fetus; Impregnation; Labor; Maternity; Obstetrics; Placenta; Puerperium
body weight gain in, 1443
Complications: See also Pregnancy, syphilis in
complications, anemia (hypochromic), [Hamilton] 1071—ab
complications, anemia (megaloblastic), [Davidson] 570—ab
complications, anemia (pernicious) [Miller] 1436—ab
complications, diabetes, [Eisele] ★188
complications, hypertensive-albuminuric, [Tillman] ★587; (discussion) 598
complications, myasthenia gravis in infant of mother with, [Strickroot & others] ★1207
complications, parathyroid tetany, effect of taking calcium lactate on fetus; suggest dihydrotachysterol or vitamin D_2, 87
complications, rheumatic heart disease, [Hoffman] 476—ab
complications, thrombopenic purpura, splenectomy cures; later 3 full term pregnancies, [Urbanski & Hunter] ★754
complications, trichinosis, 326
complications, tuberculosis, tuberculin reaction in, [Lichtenstein] 313—ab
complications, urinary Bact. flexneri infection, [Diddle] 988—ab
diagnosis, prostigmine methylsulfate, [Winkelstein] 564—ab
diet in well balanced, 385; (correction) 778
ectopic and corpus luteum cyst; clinical similarity, [Israel] 232—ab
ectopic ruptured, reinfuse blood in, 140
effect of single large alcohol (beer) intake on fetus, 88
eye accommodation during, 872
hygiene: care of women under Hitler's rule, 138
hygiene, standards for industrial care and employment, 55
hygiene: women's war work, England, 779
Interruption of: See Abortion
iodine and calcium preparations in, 1443
iron requirement, [Heath] ★367; ★368
mineral metabolic balances (mgs. per day: intake; retention) [Macy] ★37; ★38; ★41
Multiple: See Twins
placenta previa, 410
protein requirement, [Lewis] ★203
sulfonamide-treated mother, fatal toxicity in newborn, [Ginzler] 232—ab
survey in Oregon shipyard community, [Fitzgibbon] 1140—ab
syphilis in, bismarsen for, [Beerman & others] ★337
syphilis in research with Wassermann and Kahn tests in Argentina, 303
Toxemia of: See also Eclampsia
toxemia of, prevention, [Eastman & Whitridge] ★729
toxemia of, proteinuria in, [Dieckmann & Kramer] ★590; (discussion) 598
toxemia of, relation to hormones of placenta origin [Taylor] ★595
Urine: See Gonadotropins, chorionic
vitamin K, when to administer in, 1443
vomiting in, vitamin B complex for, [Willis] 564—ab; [Hart] 1250—ab
PREGNANDIOL in urine, Venning's gravimetric method to determine, [Hamblen] 988—ab
relation to pregnancy toxemia, [Taylor] ★595
PREHABILITATION: See also Rehabilitation
[Rowntree] ★1229
PREHYPERTENSIN, renal pressor system, 923—E
PREMATURITY: See Age, premature aging; Labor, premature
PREMEDICAL Work: See Education, Medical
PREPAREDNESS, Medical: See Medicine and the War
PREPAYMENT Plan: See Hospitals, expense insurance
PREPUCE: See Phimosis
PRESERVES, sugar content, legal standards, [Kohman] ★837
PRESIDENT'S Birthday Fund: See Poliomyelitis
PRESS: See Newspapers
PRESSURE, low pressure phase of blast [Latner] 1436—ab
Osmotic: See Osmotic Pressure points to control bleeding, 411
positive and negative, role in resuscitation, [Thompson] 569—ab
PRESTONE antifreeze with wine, death from drinking, 575
PREVENTIVE medicine clinic by U. of Colorado, 381
PRINT Collection: See Art
PRIORITIES AND ALLOCATIONS: See also Rationing (cross reference)
agar, 295
caffeine, 210
cream of tartrate, 294
narcotic drugs, 543
quinine 377; 459; 1042
roentgen ray equipment, 705
sutures, 294; 547
theobromine, 210
vinyl acetate, 772
PRISCILLA Parker Products: See Parker
PRISONERS: See also Criminals
bismuth hepatitis; at San Quentin, [Kulchar & Reynolds] ★343
of war, British war blinded; new camp in Germany, 302
of War Convention, Geneva; Japanese agreement, 293—E
of war: 750 physicians, Germany, 1223
PRIVACY: See Medicolegal Abstracts at end of letter M
PRIVILEGED COMMUNICATIONS: See Medicolegal Abstracts at end of letter M
PRIZES: See also Fellowships; Lectures; Scholarships
Alvarenga, 633
American Chemical Society, 384
American Congress of Physical Therapy, gold key, 384
American Hospital Association silver cup to state hospitals, 1147
American Urological Association Award, competition open, 1238
Army-Navy E awards to Squibb and to Abbott Laboratories, 777
Blane (Gilbert) Medal of Royal Navy, 464
Caldwell Medal, 384
Casselberry Awards, 1150
Cleveland (Clement) Medal, 463
Comisión Nacional de Cultura of Buenos Aires, 3 awarded by, 976
Cullen, 1048
Dana (Leslie), 775
Dearholt (Hoyt E) Memorial Medal, 382
Garvan Medal, 384
Gorgas Medal, 1329
Grocery Manufacturers of America, 1409
Harris (Townsend) Medals, 1407
Houghton Mifflin Award, 974
International Veterinary Congress (12th), 133
Judd (Catharine Berkan) cancer, 973
Mead Johnson, (vitamin B research, nominations open) 547; (Awards in Pediatrics, winners announced) 1328
"Medals of Honored Merit" to American medical men for services to China, 849
Menninger Foundation prize for window display, 709
Messel Medal, 218
Mississippi Valley Medical Society, 1236
Montes de Oca, 976
Moxon Medal of Royal College of Physicians of London, 464
National Society for the Prevention of Blindness, for work on glaucoma, 1238
Nichols (William H.) Medal, 974
Oberlin Award (first presentation) 1407
Order of the Purple Heart, medical officers awarded for service in Burma, 627
Parent's Magazine medal, 1238
Remington Medal, 777; 1327
Royal College of Surgeons Medal to Lord Nuffield, 464; 1330
Sedgwick Medal, 854
St. Louis Award, 1327
Trudeau Medal, 216
U. S. Army Medical Dept. Medals, 1400—E
U. S. Naval Hospital at Pearl Harbor cited for service, 1402
Weber-Parkes, 464
Wellcome, 1133
PROCAINE HYDROCHLORIDE: See also Anesthesia
percaine confused with, fatal mistake, 780
specific gravity in spinal fluid, 168
use in myiasis from warble fly larvae, [Harrell] 403—ab
PROCESSING: See under Food
PROCUREMENT and Assignment Service: See Medicine and the War
PROFESSIONS: See Dentistry; Medicine; Nursing; etc.
PROGESTERONE, antifibromatogenic action, [Lipschütz] ★171
Excretion Product of: See Pregnandiol
relation to pregnancy toxemias [Taylor] ★595
treatment in abortion, [Davis] 237—ab
vitamin E activates [Stähler] 486—ab; 487—ab
PROGESTIN metabolism in abortion, [Davis] 237—ab
PROMIN treatment of tuberculosis, [Barach] 792—ab; (using intravenous drip method) [Zucker] 792—ab
PROMINAL: See Mebaral
PROMOTION depression, [Flanagan] ★1383
PRONE pressure method, Borg timing device, 373
PRONTO, 67—BI
PROPYLENE glycol, disinfect air to control influenza, [Stokes & Henle] ★16
glycol vapors, germicidal action; fumigation and humidity, 625—E
PROSTATE cancer, bilateral orchiectomy; clinical and x-ray evidence, [Alyea & Henderson] ★1099; [Nesbit & Cummings] ★1109; [Gutman] ★1115
cancer, biochemical therapeusis, [Herbst] ★1116
cancer, clinical aspects, [Hamm] 795—ab
cancer (early), diagnosis; treatment, [Creevy] ★1102
cancer, estrogens for [Kearns] 240—ab; [Kahle] 317—ab; [Alyea & Henderson] ★1099; [Gutman] ★1115; [Herbst] ★1116; [Keyser] 1255—ab
cancer, histology vs. clinical course, [Evans] 1063—ab
cancer, serum "acid" phosphatase in, [Herger] 74—ab; [Alyea & Henderson] ★1099; [Nesbit & Cummings] ★1109; [Gutman] ★1112; [Herbst] ★1116
cancer, transurethral resection for, [Thompson] ★1105
cancer, treatment, symposium on, [Alyea & Henderson] ★1099; [Creevy] ★1102; [Thompson] ★1105; [Nesbit & Cummings] ★1109; [Gutman] ★1112; [Herbst] ★1116; (discussion) 1120
hypertrophy, diagnosis; treatment, [Creevy] ★1102
hypertrophy, diethylstilbestrol with testosterone for, [Keyser] 1255—ab
Inflammation: See Prostatitis
resection, transurethral, [Thompson] ★1105
resection (transurethral), urethra diverticula after, (first on record), [McGavran] ★1381
PROSTATECTOMY, radical perineal, technic, [Creevy] ★1103
PROSTATITIS, cause of abdominal pain, [Freund] 396—ab
PROSTIGMINE bromide for periodic headaches, [Pelner] 1252—ab
methylsulfate, action on intestinal motility, [Puestow] ★906
methylsulfate and bromide for mother and child with myasthenia gravis [Strickroot & others] ★1207
methylsulfate and bromide in myasthenia gravis in 5 year old, [Lieberman] ★1209
methylsulfate, effect on measuring pain threshold, [Andrews] ★525
methylsulfate in myasthenia gravis, effect of thymectomy, [Harvey] 1251—ab
methylsulfate to differentiate delayed menses from pregnancy, [Winkelstein] 564—ab
PROSTITUTION abolition, Argentine laws, 303
open, and venereal disease, 1180—ab
repression and venereal disease in soldiers and sailors, [Clarke] 882—ab
PROTAMINE Zinc Insulin: See Diabetes Mellitus
PROTEIN: See also Albumin; Meat; Tuberculin
Deficiency (Hypoproteinemia): See Blood proteins
diet, amount which is essential or optimal, [Lewis] ★202
diet, deficiency in children, [Jeans] ★920
diet, low, role in hepatic cirrhosis in alcoholism, 624—E; [György & Goldblatt] 1157—C
diet, recommended daily allowances, [Wilder & Keys] ★530; (in British diet) ★534
hydrolyzed, use in surgical shock, [Elman] ★1176; (criteria for use) 1180—ab
in Blood: See Blood
in nutrition, [Lewis] ★198
in Urine: See Albuminuria
reserves and immunity, Dr. Cannon's address on, 1309—E
Sensitivity to: See Anaphylaxis and Allergy
wheat, biologic value, 126—E
PROTEINURIA: See Albuminuria
PROTEUS mirabilis or vulgaris infection, Weil-Felix reaction in, [Dammin] 567—ab
PROTHROMBIN in Blood: See Blood
PROVIDENCE Medical Association broadcasts, "Health in the News," 700—E
PRUNES, nutritive value, [Maynard] ★696
PRURITUS, purpura (possible) 656
relief with ethyl aminobenzoate for chigger bites, [Sutton] ★26
senile, androgens and estrogens for, [Feldman] 153—ab
Vulvae: See Kraurosis vulvae
Young's Preparation, 552—BI

PSEUDOHYPOPARATHYROIDISM: Seabright Bantam Syndrome, [Albright] 155—ab
PSEUDOMONAS aeruginosa infection, Weil-Felix reaction in [Dammin] 567—ab
PSEUDOMYXOMA Peritonei: See Appendix mucocele
PSITTACINE birds imports prohibited, Mich. 59
PSORIASIS: See also Parapsoriasis
Pixacol, 1334—BI
treatment, sarsaparilla compound (sarsasaponin), [Thurmon] 480—ab
PSYCHIATRIST, naval, training, [Marsteller & others] ★968
PSYCHIATRY: See also Neuropsychiatry; Psycho—
nurses trained in, at Illinois Neuropsychiatric Institute, 1406
Pennsylvania Society meeting, 1050
prize for window display on by Menninger Foundation, 709
service in venereal disease clinic, San Francisco, 1236
Southern Association meeting postponed, 633
survey of men classified under Selective Service, 852
PSYCHOANALYSIS: See also Personality
Boston Psychoanalytic Institute officially opened, 707
Institute for, discussion on war neuroses, Chicago, 381
PSYCHOLOGISTS, U. S. Army to train to sift illiterate selectees, 541
PSYCHOLOGY, American Psychological Association meeting canceled, 61
vitamin B_1 and endurance; "pep" talks, [Karpovich] 78—ab
PSYCHOSES: See also Mental Disorders
mental and nervous effects of lightning shock, 577
postinfectious, heredobiologic evaluation, [Enke] 1438—ab
War: See Neurosis
PSYCHOSOMATIC MEDICINE, constitutional inadequacy, [Robinson] 553—C
duodenal ulcer; statistical study, [Morrison & Feldman] ★738
hypertension, [Weiss] ★1081
PSYCHOTHERAPY: See also Hypnosis
Council for Research in Brief Psychotherapy first, meeting, 631
of chronic alcoholism; clinical study, [Miller] ★271
of dysmenorrhea, [Brown] 400—ab
of urinary frequency in young girl, 87; (reply) [Aring] 802
PSYLLIUM SEED use instead of agar, 295
PUBERTY: See Adolescence
PUBLIC Health: See Health
Lectures: See Lectures
Schools: See Schools
PUERPERIUM, bed rest (7 to 9 days) after childbirth, 631; 801; 1147
complications: megaloblastic anemia, [Davidson] 570—ab
complications: uterus inversion, treatment, [McLennan & McKelvey] ★679
industrial employment policies and care after delivery, 56
sexual sterilization in [Hewitt] 1164—ab
PUERTO RICANS, health conditions in East Harlem, 1311—E
PULMONARY: See Lungs
Arteries: See Arteries
Embolism: See Embolism
Tuberculosis: See Tuberculosis, Pulmonary
PULMOTOL, 225—BI
PULSE during labor as guide to onset of cardiac failure, [Mendelson] 987—ab
venous, photoelectric meter registration, [Matthes] 407—ab
PUNCH biopsy, 492
PUNCTURE: See Spinal Puncture; Testis
PUPILS, reflexes, photoelectric meter registration, [Matthes] 407—ab
rigid, dilated, 1170
PURGATIVES: See Cathartics
PURPLE Heart Award: See Prizes, Order of Purple Heart
PURPURA, hemorrhagic, in exophthalmic goiter, [Bickel] 992—ab
Henoch's, idiopathic, [Hadley] 568—ab
possible, 656
thrombopenic, complicating pregnancy; splenectomy cures; 3 full term pregnancies later, [Urbanski & Hunter] ★754
thrombopenic, primary splenic neutropenia, [Wiseman] 153—ab
PUS: See Abscess; Infection, pyogenic; Suppuration (cross reference); Skin disease
PYELONEPHRITIS, atrophic chronic; relation to hypertension, [Taylor] 235—ab
relation to hypertension, [Shure] 720—ab
PYLEPHLEBITIS, effect of dicoumarin, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Butsch & Stewart] ★1025
PYLETTS, Freeman's, 640—BI
PYLORUS, obstruction in juxtapyloric ulcer, [Rowland] ★818
obstruction in peptic ulcer, [Wilkinson] 1425—ab
spasm secondary to gallbladder disease, pain in chest, [Harrison] ★522
PYONEPHROSIS, unilateral nephrectomy, [O'Conor] ★581
PYREXIA: See Fever
PYRIDOXINE, chemistry; clinical aspects, [Elvehjem] ★1392
hydrochloride, N. N. R. (Smith-Dorsey), 373
in various foods, [Elvehjem] ★1389
treatment of adolescent acne, [Jolliffe] 75—ab
treatment of muscular dystrophy, [Hawke] 566—ab
treatment of vomiting of pregnancy, [Willis] 564—ab

Q

QUARANTINE: See Poliomyelitis; Venereal Disease
QUEEN Ann Hair Dye, 641—BI
QUEEN'S University memorial to Dr. Thomas Gibson, 854
QUINIDINE compared with papaverine, therapeutic results, [Elek & Katz] ★440
QUININE, add to local anesthetic for intercostal block for abdominal wall? 1079
as gametocides, [Aguilar Meza] 320—ab
Cinchona Products Institute, Inc., survey plantations, 1051
found in home for aged, Calif., 851
substitute for, (Christophers discusses) 385; (National Research Council and WPB recommendations) 1043
U. S. government urgently needs, 377
vs. atabrine, cost of, 459
QUINLAN Pore Cream; Skin Stimulant, 471—BI

R

RABBIT Fever: See Tularemia
Serum: See Meningitis, influenzal; Pneumococcus
tame, and plague, 872
wild, susceptible to myxomatosis, 63
RABIES, clinics for antirabies injections closed, N. Y., 1148
virus, recovery from brain of undiagnosed case, [Schaeffer] 399—ab
RACE: See Indians, American; Jews; Negroes
RACHFORD Lecture: See Lectures
RACKER, E., crystallized poliomyelitis virus, 1218—E
RADIATION: See also Cyclotron; Infra-Red Rays; Radium; Roentgen Rays; Ultraviolet Rays
cancer, [Silverstone] 567—ab
RADIO, effect on public morale, committee to study, 709
Frequency Energy Apparatus: See Diathermy
Institute of Inter-American Affairs, 632; [Fishbein] ★1188
Program by A. M. A.: See American Medical Association
Providence Medical Association broadcasts, "Health in the News," 700—E
tributes to physicians by Deems Taylor, 699—E
used in mental hygiene program, Minnesota, 299
RADIOACTIVE Cones, 552—BI
iron, metabolism of, 1399—E
strontium for bone and bone marrow lesions, 1350
RADIOLOGY laboratory established at Columbia, 1050
Latin American radiologist (Dr. Guzmán) on tour, 1406
Radiological Society of North America, (program) 976; (elections) 1409
RADIUM Emanation: See Radon
National Radium Commission recommendation: organize cancer treatment, England, 302
poisoning, oral manifestations, [Schour & Sarnat] ★1204
Treatment: See also Deafness; Endometriosis; Epithelioma; Foot, Hongkong; Uterus cancer
treatment causes lesions of rectum and bladder, [Chydenius] 1074—ab
treatment for office practice of otolaryngology, 658; (reply: where obtainable) 996
RADIUS fracture; dislocation: Monteggia's fracture, [Blount & others] ★111; ★114
RADON implants, 5 year control of bladder cancers, [Barringer] ★909
RAGE, relation to essential hypertension, [Weiss] ★1081
RAGWEED hay fever, 727
RAIDS: See Air Raids
RAMEL, EDWIN, death, 1153
RAPE, attempts at, statistics on, Argentine, 303
RARE Chemicals, Inc., National Oil Products Co. takes over, 852
RASH: See Eruptions
RATION for Armed Forces: See Medicine and the War, nutrition
RATIONING: See Food; Fuel; Gasoline; Paper; Priorities and Allocations; Rubber tires; Sugar
RATS, control, importance in endemic typhus, [Joseph] 568—ab
RAYS: See Radiation
READER'S Digest: See Journals
RECREATION: See also Physicians, avocations
a sovereign remedy, 329—ab
War Recreation Congress, 705
RECRUITS: See Medicine and the War; World War II
RECTUM: See also Anus
Administration by: See Enema
cancer, electrosurgical therapy, [Roffo] 1073—ab
RECTUM—Continued
cancer, lymphatic and venous spread of, [Grinnell] 397—ab
cultures from, finger cot method to obtain, [Yannet & others] ★184
infection, relation to liquid petrolatum and saline laxatives, [Thiele] 1343—ab
lesions from radium therapy of cervical cancer, [Chydenius] 1074—ab
stricture from venereal lymphogranuloma, sodium sulfanilyl sulfanilate for, [Levy] 231—ab
surgery, complications of one stage abdominoperineal resection, [Jones] ★104
Young's (Dr.) Rectal Dilators, 552—BI
RECURRENT Fever: See Relapsing Fever
RED CROSS: See also Red Cross, American
Australian, Dr. John N. Morris in U. S. in behalf of, 1314
Canadian, community doctor service, 778
Geneva, movement; Geneva Prisoners of War Convention, Japanese agreement, 293—E
RED CROSS, AMERICAN, A.M.A. commends first aid work by; pressure points to control bleeding, 411
appeals for nurse-instructors, 971
Blood Donor Service, [Taylor] ★119; 209; 627; 727
Blood Donor Service received Army-Navy E, 384
Borg Prone Pressure Timing Device (for instruction in manual resuscitation), 373
emergency medical services equipment, 209
emergency medical station units shipped to Caribbean area, 378
Harvard field hospital transferred to American Army, 377; 710
medical service; H. E. Kleinschmidt director, 975
midwestern area head; Dr. Mettel, 463
nurses aides for veterans hospitals, 971
social service scholarships, 1409
war surgeon and treatment of wounds; statement by Dr. Finney (?) in 1917, 1312—E
REDI-MEAL, 66—BI
REDUCING: See Obesity
REDUS-AID Candy, 785—BI
REED'S Effervescent Bromo-Sizz, 552—BI
REFLEX, Carotid Sinus: See Carotid Sinus, syncope
conditioned, treatment of chronic alcoholism with emetine, [Lemere & others] ★269; [Kroger] 714—C
oculocardiac, and parasympathetic, pentothal sodium affect, [Bishop & Rudder] ★809
pulmonary atelectasis: use of atropine; [de Takats] ★686; (suggest atropine with potassium iodide), [Schulman] 1157—C
pupillary, photoelectric meter for registering, [Matthes] 407—ab
REFRACTION: See Eyes
REFUGEE Physicians: See Physicians, foreign
REGENERATION: See Epiphyses; Muscles; Nerves
REGISTRATION: See Licensure
REHABILITATION, [Rowntree] ★1229
after injuries of central nervous system, 63
council formed by American Physiotherapy Association, 633
program, (West Va.) 301; (for tuberculous, Pa.), 463
training limbless, England, 1239
REID, JOHN, theory in 1841 substantiated: galvanic stimulation of muscle after peripheral nerve section, 375—E
REJUVENA, 308—BI
REJUVENESCENCE Cream, Charles of the Ritz, 640—BI
RELAPSING FEVER in Addis Ababa, body louse transmits; neoarsphenamine and menadione for, [Robinson] 1070—ab
in Tobruk fortress area, [Cooper] 484—ab
REMINGTON Medal: See Prizes
RENAL: See Kidneys
Rickets: See Osteodystrophy, renal
RENATONE Pills, 225—BI
RENESOL, 1156—BI
RENIN, role in hypertension, [Page] ★757; 923—E
RENTON'S Hydrocin Tablets, 552—BI
REPORTABLE Disease: See Disease, reportable
REPRINTS: See Articles
REPRODUCTION: See Families; Pregnancy; Sterility; etc.
REPTILES, value as food, [Wilder & Keys] ★531
RESEARCH: See also Science; under names of specific subjects as Cancer; Nutrition
A. M. A. grants for research, 544—OS
carried on by Navy Medical Reserve Corps, [McIntire] 1136—ab
Clinical: See Clinical research
Fellowships: See Fellowships
Medical Research Council: See Medical Research Council
National Research Council: See National Research Council
Prizes for: See Prizes
scientific, Herbert Spencer's classic comments on, [Dickson] ★414

RESIDENCIES, hospitals approved for, by A. M. A., 972—OS
in ophthalmology and otolaryngology, [Harkness] ★328
memorandum for administrators regarding essential positions, 56
RESIDENTS, deferment for 1943-1944, 1220
RESORTS: See Health resorts
RESPIRATION, Artificial: See Respirator; Resuscitation
breathing exercises to prevent atelectasis, [Schmidt & others] ★895
Disorders: See Asphyxia; Dyspnea
during labor as guide to onset of cardiac failure [Mendelson] 987—ab
interdependence of function in anesthesia, [Bourne] ★997
labored, from dropping mandible, 728
RESPIRATORS and how to use them, [McLoughlin] 154—ab
rubber dermatitis from wearing, 127—E; [Petro] 157—ab
RESPIRATORY METABOLISM: See Metabolism, basal
RESPIRATORY SYSTEM: See also Bronchus; Lungs; Pleura; Trachea
Infection: See also Colds; Influenza; Pneumonia; Tuberculosis, Pulmonary
infection in children, sulfathiazole for, dosage; secondary effects, [Herlitz] 321—ab
infection of upper, relation to rheumatic heart disease, [Juster] 153—ab
RESPONSIBILITY: See also Malpractice
increase in, promotion depression, [Flanagan] ★1383
REST: See Bed Rest
RESUSCITATION: See also Respirators
asphyxial, with inert gas, [Birnbaum] 318—ab
Drinker type for infants, (reply) [Bundesen] 995
in advanced asphyxia; role of positive and negative pressure, [Thompson] 569—ab
manual, Borg Prone Pressure Timing Device, 373
of infants: methods used in Chicago's hospitals (reply), [Bundesen] 995 (reply: failure due to cerebral hemorrhage) [Gill] 1444
RETAN Technic: See Poliomyelitis
RETINITIS in diabetic, [Anderson] 1163—ab
RETINOPATHY, diabetic, [O'Brien & Allen] ★190
RH factor, irregular isoagglutinins, [Davidsohn] ★1288
RHEUMATIC FEVER, Cardiac Complications: See Heart disease (rheumatic)
care of children, New York, 776
heart size in children with, [Keith] 1161—ab
lecture by Dr. J. G. F. Hiss, New York, 708
Metropolitan educational program, 778
preventive treatment, salicylate, [Coburn] 720—ab
preventive treatment, sulfanilamide, [Thomas] 398—ab
reportable in Cincinnati, 776
trauma precipitating, 248
RHEUMATISM: See also Arthritis
Acute Articular: See Rheumatic Fever
antimony, after anthiomaline, [Shaffer] 152—ab
Chumanie's Double RR Tablets, 640—BI
Desert: See Coccidioidomycosis
Merit Short Wave Diathermy, 1156—BI
palindromic: Hench-Rosenberg syndrome, [Mazer] ★364
Spalding's Wonder Plasters, 146—BI
treatment, oxygen subcutaneously, 165
United Short Wave Diathermy, 1156—BI
RHEUMATOID Arthritis: See Arthritis
RHINITIS, Vasomotor: See Hay Fever
RHINOPHARYNX: See Nasopharynx
RHINOSPORIDIOSIS in Texas, [Pasternack] 651—ab
RHUMO-RUB, 67—BI
RHUMO-TABS, 67—BI
RHUS, Poison Ivy Extract, N.N.R., (Parke, Davis) 205
poison ivy, oral prophylaxis, [Gold] 1164—ab
poisoning, treatment, alcoholic extracts, [Clarke] 1164—ab
RIBOFLAVIN, addition to child's diet, [Jeans] ★919
in various foods, [Elvehjem] ★1389; (chemistry; clinical aspects) ★1390
recommended daily allowances, [Wilder & Keys] ★530
RICE, nutritive value, [Wilder & Keys] ★534; [Maynard] ★694
RICKETS, late, with chronic acidosis, [Boyd] 1339—ab
Renal: See Osteodystrophy, renal
treatment, vitamin D, [Butt] ★1035
treatment, vitamin D_2 in massive doses [Lowell] 1438—ab
RICKETTSIA: See Rocky Mountain Spotted Fever; Typhus
RIGIDITY, muscular: See Contraction
RINGER'S Solution: See Chlorides, isotonic solution of 3 chlorides
RINGWORM: See Dermatophytosis
RISING, early, after childbirth, 631; 801; 1147
RITZ Breath Purifier and Effervescent Seltzer, 470—BI
ROACH Powder: See Cockroach
ROAD Accidents: See Accidents
ROBERTA Blueberry Juice, 1156—BI
ROCHESTER Academy of Medicine opens fall program, 299
ROCK-A-WAY Tablets, 552—BI
ROCKEFELLER Foundation: See Foundations
Institute, (fund aids campaign against malaria) 778
ROCKY MOUNTAIN Medical Conference canceled, 464
ROCKY MOUNTAIN SPOTTED FEVER, [Baker] 648—ab
RODENTS: See Rats
ROENTGEN RAYS, American Roentgen Ray Society, 61
anemia and leukopenia in x-ray workers, 548
colds aborted by, Dr. Rollins observation in 1897, 325
Diagnosis: See Coccidioidomycosis; Heart lesions; Intestines obstruction; Meningioma
effect on infections and inflammations, [Weed] 481—ab
equipment, general limitation order on, 705
evidence of prostate cancer, [Alyea & Henderson] ★1099; [Nesbit & Cummings] ★1109; [Gutman] ★1115
fluoroscope (biplane) to localize ocular foreign bodies, [Spaeth] ★659
sexual sterilization of bitches by, 577
ROENTGEN THERAPY: See also Acne vulgaris; Endometriosis; Epithelioma; Gangrene, gas; Lymphatic System, tuberculous adenitis; Peritonitis, tuberculous; Uterus cancer
contact, [Howes] 1428—ab
Durante-roentgen method using iodine in osteomyelitis, 140
rotation in, [Nielsen] 1074—ab
ROENTGENOGRAPHY: See also Arteries; Spinal Canal; etc.
miniature mass, in Royal Air Force, [Trail] 158—ab
ROENTGENOLOGIST, role in diagnosis of congenital cardiac lesions, [Bromer] ★251
ROLLINS, WILLIAM, abortion of cold by x-ray in 1897, 325
ROMANO, NICOLÁS, appointed president, 711
RO-MARI, 67—BI; 471—BI
RONNI Mascara, 641—BI
ROOM, Sterilization: See Air disinfection
Temperature: See Temperature
ROO-MO-RUB, 470—BI
ROOSEVELT, F. D., President's Birthday Fund for poliomyelitis, 61; 1328
ROSE hips, nutritive value, [Kohman] ★837
ROSENBERG-Hench Syndrome: See Rheumatism, palindromic
ROTATION Therapy: See Roentgen Therapy
ROUTLEY, T. C., health insurance in Canada, 1404
ROYAL: See also British
College of Nursing, (recommends nursing as a closed profession) 779
College of Physicians of London, (Moxon medal) 464; (Cullen prize) 1048
College of Surgeons of London, (honorary medal to Lord Nuffield) 464; 1330; (destruction of instruments in museum; Thompson's illustrated catalog) 1330
Institution of Great Britain, (laboratories, Sir Henry Dale director) 976
Navy: See Navy
Society of Canada, (James B. Collip president) 137
Society of Medicine, (honorary fellowship) 549
Society of Tropical Medicine and Hygiene, (discuss atabrine, plasmochin and other quinine substitutes) 385
RUBBER: See also Elastic
articles, how to prolong life of, 847; 1134; (danger from cresol) [Waters] 1336—C
articles, Zephiran Chloride for sterile storage of, 289
cushion, use of anesthetic masks with, irritation of skin from, 249
dermatitis from masks due to accelerators and antioxidants, 127—E; [Petro] 157—ab
gloves, shortage, England, 780
gloves, sterilization, [Stuart] 241—ab
gloves, surgeons', how to conserve; how to repair, 847; 1134
pessary, soft, intracervical, used as contraceptive, 412
section (tubing), inserted for laryngeal stenosis, [Jesberg] ★1000
sensitivity to: blisters on feet and composition of shoes, 86
soaked in cresol, burns from, [Waters] 1336—C
synthetic, benzene poisoning from, [Wilson] 1252—ab
tire rationing and rural medical service, [Taylor] 1234—ab; [West] 1235—ab
tire rationing, physicians' part in, 700—E; [Richards] 701
tires and wheels, how to conserve, 847
RUBEOLA: See Measles
RU-MARI Co., 67—BI; 471—BI
RU-MA-SOL, 225—BI
RUMREICH, ADOLPH, on commission to study typhus in war zones, 1044
RUNNERS: See Athletics
RUPTURE: See Hernia; under name of organ as Spleen; Urethra
RURAL: See also Farm
areas, medical service and tire rationing, [Taylor] 1234—ab; [West] 1235—ab
areas, physicians supply for, [Rowntree] ★1227
tuberculosis in Brazil, 1054
RUSH MEDICAL College, Presbyterian Hospital reorganized, Chicago, 461
RUSSIAN Army doctors operate under fire, 294
Army, ophthalmic surgery, [Filatov] ★54
physicians, request reprints, [Razran] 226—C
surgery; Burdenko and his school, [Lepukain] ★1131
War Relief, Inc., (purchase blankets) 849; (report) 1314
RYE, nutritive value, [Wilder & Keys] ★534; [Maynard] ★694
RYLE, J. A., urges wider clinical study of disease in the Gilchrist Lecture, 1151

S

S. C. S. Corn Salve and S. C. S. Athlete's Foot Salve, 1334—BI
SACCHARIN, shortage of, Germany, 848
SACHS, BERNARD, *Journal of Mount Sinai Hospital* honors, 975; 1219—E
SAENZ, ABELARDO, biographical data, 637
"SAFE Period": See Menstruation
SAFETY: See also National Safety
metal safety and glare goggle, [Stieren] ★26
SAGE, Peggy Sage and Cutex, 307—BI
SAILORS: See also Navy; Ships; Medicine and the War
Sailors' and Soldiers' Civil Relief Act Amendments, (Bureau report) 539
ST. BERNARD Compound Herb Tea, 67—BI
ST. LOUIS Award: See Prizes
Encephalitis: See Encephalitis, Epidemic
SALESMEN, Fraudulent: See Impostors
SALICYLATES: See Acid, acetylsalicylic; Physostigmine
SALIVARY GLAND, tumors (mixed), [Hemplemann] 234—ab
SALMON Lecture: See Lectures
SALMONELLA carriers, [Vaccaro] 407—ab
food poisoning differentiating from staphylococcus food poisoning, [Slocum] 403—ab
Typhosa: See Eberthella
SALT: See also Sodium chloride
Oil-of-Salt, 470—BI
SALTS, saline laxatives; relation to anorectal infections, [Thiele] 1343—ab
SALVAGE: See Waste Material Campaign
SALVARSAN: See Arsphenamine
SAN FRANCISCO County Medical Society, Irwin baby blood bank, 1326
Municipal Health Organization, [Kress] 1323—ab
Session: See American Medical Association
SAN JOAQUIN Valley Fever: See Coccidioidomycosis
SANATORIUMS: See Battle Creek; Tuberculosis
SANITARY conference, Pan American (11th), 62; 778; 978; 1411
SANITATION: See also Hygiene
Argentine Congress of, Buenos Aires, 857
department of, Paraguay, 711
SARCOIDOSIS, 575
benign lymphogranulomatosis (Schaumann) [Dressler] 407—ab
Boeck's, with nodular iritis, [Thornhill] 647—ab
differentiating from tuberculosis, [Rakov] 399—ab; 575
SARCOMA: See also Lymphosarcoma
Kaposi's (multiple idiopathic hemorrhagic), [Aegerter] 649—ab
SARSAPARILLA compound (sarsasaponin) for psoriasis, [Thurmon] 480—ab
SAS-NAK, 471—BI
SATCHWELL, S. S., highway marker honors, 546
Saturday Evening Post: See Journals
SAUERKRAUT, fermentation, effect on vitamins in, [Kohman] ★838
SAVON, Peggie Moran, 1156—BI
SCABIES treatment, benzyl benzoate, dimethylthianthrene and tetraethylthiuram monosulfide, [Gordon] 241—ab
SCALDS: See Burns
SCALENUS Anticus Syndrome: See Muscles
SCALP: See also Hair
Dandruff: See Alopecia seborrheica
dermatitis, and permanent wave solutions, 657
La-Nu Hair and Scalp Vitalizer, 471—BI
Mahdeen, 391—BI
SCAPULA: See also Shoulder
winged; in soldier from knapsack, [Ilfeld & Holder] ★448
SCAR: See Appendectomy
SCARLET FEVER, epidemics and shifts in wartime population, 767—E
immunization methods, 5 dose vs. 10 dose method, 250
isolation wards, cross infection in, [Stalker] 319—ab
SCHAUMANN'S Disease: See Sarcoidosis
SCHIZOPHRENIA: See Dementia Praecox

SCHOLARSHIPS: See also Fellowships
in social service by American Red Cross, 1409
in tuberculosis by Pennsylvania Society, 60
of Indiana Tuberculosis Association awarded to Dr. Tucker, 707
Swiss foundation for, 1153
SCHOOLS: See also Medicolegal Abstracts at end of letter M
board rejects compulsory vaccination, Ia., 299
board rejects social hygiene instruction, N. Y., 1407
Children: See Children
for handicapped children, Panama, 137
for Technicians: See Laboratories; Physical Therapy; Technicians
health tests, regulations governing, N.Y., 300
lunches, excessive use of sugar and carbonated beverage, (Council report) 765
lunches, raw vegetables in, England, 385
poliomyelitis closes, Havana, 464
school of humanities at Stanford, 59
school of public health, (graduation, Mexico), 466; (proposed at U. of California) 707
special, programs adapted to physicians' recommendations, New York, 463
SCHOOLS, MEDICAL: See also Education, Medical; Students, Medical; University; under names of specific schools
Accelerated Program (12 mos. a year, 6 days a week): See Education, Medical, curriculum
Admissions: See also Education, Medical, premedical work
admissions vs. future supply of physicians; Gideonse article in N. Y. *Times*, 50—E
Association of American Medical Colleges, (meeting) 464; (election) 976; (plan to improve teaching of tropical medicine) 1329
British, after 3 years' war, 1410
Continuation Courses: See Education, Medical, graduate
faculty members and commission in armed forces, 702; [Rowntree] ★1228
faculty members, appeals procedure for those to be considered "essential," 1132
National Defense and: See Medicine and the War, medical schools
substandard and war effort, [Rowntree] ★1228
SCHULLER-Christian Syndrome, granuloma of bone, [Green] 315—ab
SCIATICA, intensified by coughing and sneezing sign of defective intervertebral disk, [Dandy] ★605
roentgen study, [Brav] 477—ab
treatment, "combined operations" (tibia graft and laminectomy), [Ghormley & others] ★1171
SCIENCE: See also Medicine; Research
affected by World War II? 810—ab
American Association for the Advancement of, (meeting) 1238; (meeting postponed) 1328
National Association of Science Writers, 136
National Science Fund creates Charles L. Mayer awards, 1150
relations between Argentina and Brazil, 387
scientists, register with National Roster of Scientific and Specialized Personnel, 1134
Society of China, N. Y., 60
SCLERA: See also Sclerotomy
ochronosis complicating alkaptonuria, [Smith] ★1282
SCLEROSIS: See also Arteriosclerosis; Liver cirrhosis; Osteopoikilosis
amyotrophic lateral, vitamin E for, [Blakeslee] 650—ab; [Butt] ★1036
therapeutic, syncope after injecting internal hemorrhoids; epinephrine or atropine to counteract reaction, 167
SCLEROTOMY to remove metallic foreign bodies, [Spaeth] ★659
SCRAP: See Waste Material Campaign
SCREW WORMS Infestation: See Myiasis
SCURVY, subclinical, blood vitamin C levels to detect [Rhinehart] 1430—ab
SEA: See Sailors; Ships
Water: See Water
SEABRIGHT Bantam Syndrome: See Pseudohypoparathyroidism
SEAFOOD, nutritive value of, [Wilder & Keys] ★531
SEAMAN Fund for research in bacteriology by New York Academy, 382
SEASICKNESS: See also Vomiting
in Navy personnel, 1309—E
SEASONS: See also Climate
frequency of deaths from apoplexy, 410
SEATWORMS: See Oxyuriasis
SEBRONE and Waft, 641—BI
SECRETARIES: See Societies, Medical
SECUNDINES: See Placenta
SECURITY: See Social Security
SEDATIVES AND HYPNOTICS: See also Hypnosis; Psychotherapy under names of specific sedatives as Amytal; Barbiturates
in mucous colitis, [McGavran] ★183
in skull fracture, [Mock & Mock] ★502
Renesol, 1156—BI
SEDGWICK MEDAL: See Prizes
SEDIMENTATION Rate: See Blood
SEEDS: See Plants; Psyllium Seed
SEELEY, SAM F., detached from Procurement and Assignment Service, 208—E; 209
SELECTIVE SERVICE: See Medicine and the War
SELENIUM poisoning, [Shils & McCollum] ★618
SEMEN: See Spermatozoa
Artificial Insemination: See Impregnation
SEMINAL VESICULITIS chronic, treatment, 1350
SENILITY: See Old Age
SENSES: See Hearing; Smell; Vision
SENSITIVITY: See Anaphylaxis and Allergy; Pain
SERODIAGNOSIS: See under name of specific disease as Syphilis
SEROLOGY, "negative," use of term, [Fox] 787—C
SERUM, Antipneumococcus: See Pneumococcus
Blood: See Serum, plasma; etc., and subheads under Blood
Convalescent: See Poliomyelitis
dried, determine blood groups from drop of, [Wagner] 1346—ab
growth of fibroblasts in, containing sulfathiazole, [Reed] 405—ab
immune, inhaling to prevent epidemic influenza, [Stokes & Henle] ★16
injected, retention in circulation, [Sharpey-Schafer] 319—ab
National Serological Society antivaccinationist chiropractic pamphlet, 207—E
plasma, action of peroxidase in, in acute infections, [Möllerström] 487—ab
plasma, artificial antibodies; priority of Dr. F. M. Wood's work in 1912, [Wood] 309—C
Plasma Bank: See Blood Transfusion
plasma, carbon dioxide combining power of, after standing in icebox, 1261
plasma (concentrated) as hemodiluting agent in shock, [Muirhead] 404—ab
plasma, drying, Wellcome gift to Medical Research Council, 218
plasma, federal aid to hospitals to build up reserve, 209
plasma for civilian defense used in Boston disaster, 1223
plasma (human), toxicity of, Levine-State intradermal test to predict reaction, 206—E; [Levine & State] ★275; [Metzger] 714—C; [Sophian] 860—C
plasma, injection effects on treatment of shock from crush injury, [Duncan] 398—ab
plasma or serum (pooled), intravenous injection dangerous? [Thalhimer] ★1263
plasma protein solutions (concentrated) for hematogenic shock, [Muirhead] 404—ab
plasma, simplified method for administration in emergencies, [Pitman] ★195
plasma (stored), sulfathiazole in, eliminate bacterial contamination, [Novak] 316—ab
plasma studies: effective substitute for blood in hemorrhagic shock, 1054
Plasma, Transfusion of: See Blood Transfusion
plasma, unpooled liquid human, [Weinstein] 77—ab
plasma, Vacule Ampul-Vial Lyovac Normal Human Plasma, (Sharp & Dohme) 763
plasma volume, human albumin in military medicine, 1041—E
Rabbit: See Meningitis, influenzal; Pneumococcus
Sickness: See Anaphylaxis and Allergy
Therapy: See Appendicitis; Encephalitis, Epidemic
SERVICE MEN: See Medicine and the War; Veterans; World War II
SEWAGE Polluted Water: See Water, polluted
SEX: See also Fertility; Impregnation; Pregnancy; Spermatozoa; Sterility; Sterilization
Sexual
Function, Decline of: See Menopause
Function, Development of: See Adolescence
Glands: See Gonads
Hormones: See also Androgens; Estrogens; Gonadotropins
hormones, steroid hormones on a cholesterol basis, [Herbst] ★1116
Organs: See Genitals
Perversion: See Masturbation
Sterilization: See Sterilization, Sexual
SHAMPOO, Preparations: See under Hair
SHAVING excessive hair on legs, 727
SHEEP intestines for surgical sutures: (WPB instructions) 294; (shortage) 547
SHEETING, rubber, how to conserve, 847
SHELTERS: See Air Raids
SHERBORN, CHARLES DAVIES, author of *Index Animalium* dies, 219
SHIPS: See also Sailors
merchant, new type of stretcher (Neil Robertson) for, England, 218
SHIPYARD conjunctivitis, isolate virus, 538—E
conjunctivitis, sodium sulfathiazole sesquihydrate solution for, [Walter] 1157—C
workers, medical service for Oregon, [Fitzgibbon] 1139—ab; [Diehl] 1233—ab
SHOCK, after venous thrombosis, desoxycorticosterone prevents, [Katz] 718—ab
Anaphylactic: See Anaphylaxis and Allergy
SHOCK—Continued
diagnosis, head down-feet up position to measure output of blood in veins of arms, [Henderson] 1414—C
Electric: See Electric
hematogenic, concentrated plasma protein solutions for, [Muirhead] 404—ab
hemorrhagic, effective substitute for blood: studies on plasma, 1054
in animals under anesthesia with ether and pentobarbital, [Kendrick] 404—ab
in coronary thrombosis, use blood transfusion for? 1350
Insulin: See Insulin
mental effects after explosion, [Wespi] 159—ab
Obstetric: See Labor
plasma protein in; concentrated plasma as hemodiluting agent, [Muirhead] 404—ab
prevention; treatment, [Banet] 159—ab
problem of, [McIntire] ★1136
surgical, effect of desoxycorticosterone acetate, [Koster] 389—ab
surgical, pholedrine preventive, [Landau] 1165—ab
surgical, plasma and hydrolized protein (amigen) for [Elman] ★1176
Therapeutic: See Dementia Precox; Mental Disorders
traumatic, in crush injury; inject plasma and apply cold locally, [Duncan] 398—ab
traumatic, research on, 386
treatment, human albumin, 1041—E
treatment, in air raids, [Baehr] ★1045
treatment, in uterus inversion, [McLennan & McKelvey] ★679
what happens? 1009—ab
typical shocklike hemoconcentration from dysentery toxin, 1310—E
SHOEMAKER'S cartoon in Chicago Daily News, tribute to physicians, 699—E
SHOES: See also Hosiery
composition, blisters on feet from, 86
Dr. Chase's Cushion Comfort and Dr. Chase's Health Shoes, 1156—BI
Dr. Merritt's Health Shoes, 470—BI
insole and "lift" on heel for flatfoot, [Kuhns] ★332
Knipe, 66—BI
stockingless women prohibited from trying on, (Mich.) 59; (D. C.) 213
SHOO FLY Powders for Drunkenness, Mrs. Moffat's 474—MI
SHORT Stature and Height Increase, 67—BI
Waves: See Diathermy
SHOULDER: See also Scapula
myalgia and arthralgia in left; relation to angina pectoris, [Harrison] ★520
myalgia ("idiopathic") and disability, procaine infiltration for, [Travell & others] ★417
symmetrical enlargement of right arm, 995
tuberculous osteoarthritis, Volkmann's dry caries of, [Baila] 1348—ab
SHWARTZMAN Phenomenon, reaction to purified protein derivative, [Urbach] 1430—ab
SICKNESS: See Disease; Therapeutics
Insurance: See Insurance, health
Rate of: See Vital Statistics
Serum: See Anaphylaxis and Allergy
SIGHING dyspnea, differentiation from asthma, [Browning] 1343—ab
SIGHT: See Vision
SIGMA Xi Lecturers, 854
SILICOSIS: See Pneumonoconiosis
SILVER, germicidal plastics, 127—E
is excreted in urine, [Blumberg & Carey] 227—C
SIMMONDS' Disease: See Pituitary cachexia
SIMONDS, J. P., in Christian Fenger Lecture: changing concepts in pathology, 375—E
SIMPSON, WALTER M., unfair advantage taken by de Kruif in *Reader's Digest*, 48—E; [Cole] 226—C
SINUS, Carotid: See Carotid Sinus
SINUSES, NASAL, fractures, management, [Shea] ★745
in fliers, [Carson] ★5
pain (noninfectious) from nutrition deficiencies, [Roberts] 73—ab
sulfonamide powder intrasinal use [Brown] 1248—ab
SINUSITIS NASAL: See also Maxillary Sinusitis
Hasebroock's PERMANENT RELIEF FROM SINUS TROUBLE AND ASTHMA, 471—BI
SKELETON: See Bones; Muscles, skeletal
SKIING, want doctors trained in, 704
SKIN: See also Dermatology; Tissues
absorption of vitamin K by newborn, [Vollmer] 1162—ab
Aknasol, 391—BI
Blisters on: See Blisters
Burns: See Burns
Cancer: See also Epithelioma
cancer, contact roentgen therapy, [Howes] 1428—ab
cancer, roentgen rays and/or radium for, [Robinson] 478—ab
Cleansing: See Detergents; Soap
Creams or Cosmetics: See Cosmetics
dark red macules and papules on chest, abdomen and back, 88
Disease: See also Acne; Dermatitis; Eczema

SKIN—Continued
disease, contact roentgen therapy, [Howes] 1428—ab
Disease, Industrial: See Industrial Dermatoses
disease, Life Lite, 785—BI
disease, pyogenic, sulfathiazole ointment for, [Glicklich] 239—ab
Eruptions: See Eruptions
grafts (flaps) in reconstructive surgery of face, [Smith] ★352
Hemorrhage: See Purpura
Infection: See Carbuncle; Furunculosis
Inflammation: See Dermatitis
irritation from anesthetic or mask, 249
irritation from lime dust, prevention, 801
irritation from sulfathiazole, 1169
Itching: See Pruritus; Scabies
lesions appear first in Hodgkin's disease, [Gordon] 1163—ab
lesions, extensiveness, Berkow's chart, [Rothman & others] ★805
lesions of vitamin A deficiency, [Straumfjord] 401—ab; [Butt] ★1032
lotion, Ardena, 307—BI
lotion, Chamberlain's, 1334—BI
Mycosis: See Dermatophytosis
Rash: See Eruptions
Ringworm: See Dermatophytosis
sodium chloride or urea "frost" in uremia, 802
Test: See also Tuberculin
test and unsterilized needles, danger of infection, 326
test (intradermal) to predict reactions after plasma transfusions, 206—E; [Levine & State] ★275; [Metzger] 714—C; [Sophian] 860—C
trauma due to wartime activities, [Downing] 1433—ab
tuberculosis, iodides for syphilis with, 802
SKULL: See Cranium
SLEEP: See also Anesthesia; Unconsciousness
excessive somnolence and enuresis (bedwetting) in adult man, 88
SLENDOIDS (Slendoids Nu-Form Capsules), 1156—BI
SLENDOTABS, 67—BI
SMALLPOX epidemic in France, 386
treatment, sulfanilamide, [Wilkinson] 722—ab
vaccination, compulsory, rejected by Iowa school board, 299
SMELL: See also Odor
sense of, olfactory tests for supratentorial disease, [Elsberg] 314—ab
SMITH, NORMAN M., ethylene disulphonate launched as cure for asthma, 842—E
SMOKING: See Tobacco
SNEEZING sign of defective intervertebral disk, [Dandy] ★605
SNYDER, JOHN C., on commission to study typhus in war zones, 1044
SOAP: See also Detergents
exclusive use of water and, in traumatic wounds, [Kerrigan] 481—ab
Peggie Moran Savon, 1156—BI
Pine Needle Oil Soap, 308—BI
SOBISMINOL mass, use in treatment syphilis patient with cancer, (reply) [Hanzlik] 1444
SOCIAL conditions in East Harlem, relation to morbidity, 1311—E
hygiene day: Feb. 3; also folder distributed by American Social Hygiene Association, 1328
hygiene instruction, school authorities reject, N. Y., 1407
Medicine: See Medicine
reorientation in chronic alcoholism, [Miller] ★271
Security Act, (federal aid for maternity care for wives of service men) 47—E; (disability insurance and hospital benefits) 296—OS; (hospital standards for care of crippled children) 538—E; (medical care for recipients of public assistance) 706—OS
service scholarships offered by American Red Cross, 1409
Welfare: See also Housing
welfare of children, Argentina, 637
SOCIALIZED Medicine: See Insurance, health; Medicine, social; Medicine, state
SOCIETIES, MEDICAL: See also under names of specific societies; **list of organizations at end of letter S**
Annual Conference of Secretaries and Editors, 706—OS; (proceedings) 1135—OS; 1224—OS; 1315—OS
county, baby blood bank (Irwin Memorial), San Francisco, 1326
county, blood bank opened, Mass., 299
county, luncheon meetings proposed, instead of evening sessions, D. C., 59
county, members, periodic physical examination of, D. C., 381
county, number of meetings reduced, Philadelphia, 136
county, report on physician's aid by Aid Association, Philadelphia, 853
county, urged to meet regularly by Col. Rankin, 1130—E; [Rankin] ★1135
county, war benevolence fund for members in service, Cambria County, Pa., 546
Courses for Practicing Physicians: See Education, Medical, graduate, continuation courses
SOCIETIES, MEDICAL—Continued
Farm Security Administration relation to [Simons] ★1315
medical exhibits available on loan basis, 629—OS
Medical Service Plans: See under Medical Service
meetings, [Rankin] ★1135
Providence Medical Association broadcasts "Health in the News," 700—E
Society for Study of Asthma and Allied Conditions, (meeting) 976
Society of American Bacteriologists meeting canceled; abstracts in *Journal of Bacteriology*, 1238
state, annual session limited to meeting of House of Delegates, Ore., 60
state, home for, New Jersey, 1327
state, past presidents of, W. Va., 136
state, resolution on contraceptive information, W. Va., 136
state, resolution on practice of physicians in service, Ohio, 546
Woman's Auxiliary: See Woman's Auxiliary
SOCKS: See Hosiery
SODA, Baking: See Sodium bicarbonate
SODIUM Amytal: See Amytal
bicarbonate, added to vegetables; effect on loss of thiamine, [Kohman] ★834
bicarbonate solution for phosphorus burns, [Jones] 1256—ab
bicarbonate with milk in intragastric drip for peptic ulcer, [Winkelstein & others] ★743; [Cornell] 1426—ab
chloride in diet and blood volume, [Krauel] 653—ab
chloride in sea water, absorption by colon, [Bradish & others] ★683
chloride, inject umbilical vein with for retained placenta, [Shannon] 157—ab
chloride, isotonic solution of, N. N. R., (Continental Hospital Lab.) 1127
chloride, isotonic solution, sodium citrate in, N. N. R., (Hospital Liquids) 205; (Continental Hospital Lab.) 1127
chloride or urea "frost" on skin in uremia, 802
chloride, physiological solution of, N. N. R., (Upjohn) 763
chloride restriction test (Cutler-Power-Wilder), [Saurer] 868—ab
chloride treatment of Simmonds' disease, [Williams] 1250—ab
citrate 2½% W/V in Isotonic Sodium Chloride Solution, N. N. R., (Hospital Liquids) 205; (Continental Hospital Lab.) 1127
cyanide, solutions for uric acid determinations of blood, 1169
dehydrocholate, N. N. R., (Lakeside) 1307
p, p'-diaminodiphenylsulfone-N, N'-didextrose sulfonate treatment of tuberculosis, [Barach] 792—ab; (using intravenous drip method) [Zucker] 792—ab
formaldehyde sulfoxylate for acute mercury poisoning, [Wolpaw] 650—ab
Hyposulfite: See Sodium thiosulfate
lactate, MacKenzie's noninjurious substitute lubricating jelly, 847; 1134
metabolic balances, intake; retention, [Macy] ★40
metabolism in pregnancy toxemias, [Taylor] ★595
morrhuate injection for esophagus hemorrhage, [Grace] 1163—ab
morrhuate to induce pericarditis, [Rakov] 231—ab
Phenobarbital: See Phenobarbital
psyllate (sylnasol) injection of internal hemorrhoids, syncope after, 167
Sulfadiazine: See Sulfadiazine
Sulfanilyl Sulfanilate: See Sulfanilyl Sulfanilate
Sulfathiazole: See Sulfathiazole
thiosulfate ("Hypo") foot baths for athlete's foot, [Gould] 1057—C
thiosulfate omitted from N. N. R., 124
thiosulfate treatment of lead arsenate poisoning in farmer, [Kilgore & Rhoads] ★1125
SOIL, Removal of: See Detergents
SOLDIERS: See also Army; Medicine and the War; World War
Soldiers' and Sailors' Civil Relief Act Amendments, (Bureau report) 539
color blindness in; no known correction, 1080
coronary occlusion fatal in, [Sterling] 1067—ab
epidermolysis bullosa in, [Mansur] ★1122
Heart: See Asthenia, neurocirculatory
winged scapula, from knapsack, [Ilfeld & Holder] ★448
SOLUTION: See also under names of specific substances as Chlorides; Sodium chloride
Solution A (Neosol Co.), (Council report) 287
SOMATIC Complaints: See Psychosomatic Medicine
SORRELL, Sue Sorrell Texture of Youth Cream, 471—BI
SOUTH AMERICA: See also Inter-American; Latin American; Pan American; under names of specific countries as Argentina; Brazil
physicans, request A. M. A. training program for visitors, [Dornelles] ★1191
speeding health progress in the Americas, [Sawyer] ★1189
SOUTHEASTERN Surgical Assembly discontinued, 1150
SOUTHERN Medical Association meeting, 634
Psychiatric Association meeting postponed, Psychiatric Association meeting postponed, 633
Surgical Association cancels meeting, 854
Tuberculosis Conference; Southern Trudeau Society, 1051
SOVIET RUSSIA: See Russia
SOX: See Hosiery
SOYBEANS, nutritive value of, also use of press cake and "bratling," [Wilder & Keys] ★534
SPALDING'S Wonder Plasters, 146—BI
SPANISH Civil War, deficiency achylia and diarrhea during, [Jiménez] 1257—ab
monthly digests of material appearing in A. M. A. periodicals, 628—OS; [Fishbein] ★1188
SPARK'L Medicated Skin Cream, 471—BI
SPAS: See Health resorts
SPASM: See Cramps; Tetany
SPASMOPHILIA: See Tetany
SPECIALISTS: See Gynecologists; Obstetricians; Ophthalmologist; Otolaryngologist; etc.
SPECIALTIES: See also Gynecology; Pathology
Examining Boards in: See American Board units in Navy Medical Corps, [McIntire] ★1136
SPECIFIC GRAVITY of procaine in spinal fluid, 168
SPECTACLES: See Glasses
SPEECH, disorders, stuttering in adolescence, [Greene] ★1195
disorders, stuttering in boy aged 3, 726
SPENCER, HERBERT, classic comments on scientific research, [Dickson] ★414
SPERMATIC CORD: See Varicocele
SPERMATOZOA aspirated from testis injected into uterus cervix, [Guttmacher] ★443; (priority) [Huhner] 787—C
new syndrome characterized by aspermatogenesis, 1400—E
viability in vagina, [Joël] 1437—ab
SPHENOID fracture, treatment, [Shea] ★747
SPHYGMOMANOMETER cuff, metal grater on, Hollander's test for pain, 249
SPICER-GERHART Co., "ethylene disulphonate" as asthma cure, 842—E
SPIDERS, black widow bite syndrome: arachnidism, [Frank] 1067—ab
SPIES, TOM D., deferred; to continue research, 134; 922—E; 941
SPINACH, ascorbic acid values, effect of room temperature on, [Kohman] ★833
SPINAL ANESTHESIA: See Anesthesia
SPINAL CANAL, roentgenography, air myelography in disk prolapse, [Busch] 160—ab
roentgenography, epidural perabrodil in disk prolapse perabrodil, [Knutsson] 161—ab
SPINAL CORD: See also Encephalomyelitis
alcohol injected into, serious complications, [Hirschboeck] 479—ab
complications of pernicious anemia, 167
compression of abdominal aorta to control hemorrhage effect on [Strauss] 314—ab
crystallized poliomyelitis virus, 1218—E
lesion: numbness and tingling of arms, 249
lesion: symmetrical enlargement of right arm, 995
wanted cords from fatal or old cases of poliomyelitis, [Elliott] 226—C
SPINAL FLUID: See Cerebrospinal Fluid
SPINAL MENINGITIS: See Meningitis, cerebrospinal epidemic
SPINAL PUNCTURE, forced drainage in acute poliomyelitis; Retan technic, 290—E; [Kubie] 714—C
in skull fractures; axioms, indications, [Mock & Mock] ★499; ★503; ★504
SPINE, arthritis, confusion with coronary disease pain, [Harrison] ★520
intervertebral disk prolapse, air myelography for, [Busch] 160—ab
intervertebral disk prolapse, epidural contrast study with perabrodil, [Knutsson] 161—ab
intervertebral disks, protruded, tibia graft and laminectomy for, [Ghormley & others] ★1171
intervertebral disk, ruptured, diagnosis; treatment, [Eck] 1428—ab
intervertebral disks, ruptured, improved localization and treatment, [Dandy] ★605
spondylosis deformans, relation to mottled enamel and nutrition, [Kemp] 796—ab
stretchers, Pandiculator Co., 1244—BI
SPIROCHETES: See Jaundice, spirochetal
SPLEEN, Enlarged: See Splenomegaly
Excision: See Splenectomy
extract, for glaucoma, 1169
primary splenic neutropenia, new syndrome, [Wiseman] 153—ab
rupture (spontaneous) of normal, [Watson & Ferdeber] ★690
SPLENECTOMY cures, thrombopenic purpura in pregnancy, [Urbanski & Hunter] ★754
SPLENOMEGALY, follicular lymphoblastoma, [Jahsman] ★1126
in acetanilid-aminopyrine poisoning from Dr. James' Headache Powder, [Austin] ★911
SPLINTS, British experience in air raids, [Baehr] ★1045
emergency care of fractures, 1349
Thomas, in last war, 805—ab

SPONDYLOSIS Deformans: See Spine
SPORTS: See Athletics; Exercise; Swimming; etc.
SPOTTED FEVER: See Rocky Mountain Spotted Fever
SPRAIN: See also Ankle
treatment, ethyl chloride spray, [McIntosh] 1256—ab
SPRAY: See Ethyl chloride; Fruit spray
SPRUE, Nontropical: See Celiac Disease
syndrome, diagnostic criteria and resistance to therapy, [Hanes] 1061—ab
SPUTUM: See Tuberculosis, Pulmonary
SQUASH, nutritive value, [Maynard] *696
SQUIBB, E. R., & Sons (awarded Army-Navy E) 777; (biologic laboratories expanded) 1148
STAIR climbing after childbirth, 801
STAMMERING: See Speech disorder
STANFORD University, (new School of Humanities) 59; (laboratory of electroencephalography) 545; (grants for studies in tropical medicine) 1048; (high school senior eligible for college training before being drafted) 1406
STAPHYLOCOCCEMIA, bacteriophage treatment, [MacNeal] 72—ab
STAPHYLOCOCCUS aureus, blood stream infection of renal cortex, [Gibson] 401—ab
food poisoning differentiating from Salmonella type, [Slocum] 403—ab
penicillin effect on, [Craddock] 82—ab; [Florey] 482—ab
pneumonia during epidemic of influenza, [Finland] 719—ab
STARNES, A. H., delayed parachute jumps, 1311—E
STARVATION: See Famine; Fasting
STATE agencies, medical and dental care by, 1225—OS
Board: See Licensure; State Board Reports
Civil Service: See Civil Service
Health Department: See Health
Hospitals: See Hospitals
Legislation: See Laws and Legislation
Medicine: See Medicine, state
Societies: See Societies, Medical
STATE BOARD REPORTS
Alabama, 393; 1422
Arizona, 310; 1338
Arkansas, 644
California, 643
Colorado, 393; 473; 1337
Delaware, 715
Florida, 644
Georgia, 861; 1337
Idaho, 643
Iowa, 715
Kansas, 310; 1244
Kentucky, 148; 561; 1422
Louisiana, 310; 1337
Maine, 228; 984
Maryland, 984; 1337
Minnesota, 715
Mississippi, 1058
Missouri, 473; 1423
Nebraska, 473
New Mexico, 69
North Dakota, 984
Ohio, 69; 643; 861; 1422
Oklahoma, 310; 1158
Oregon, 148; 310; 788; 984
Rhode Island, 1158; 1244
South Dakota, 788
Tennessee, 473
Texas, 228; 561
Utah, 1337
Washington, 1158
West Virginia, 1158
Wyoming, 1058
STATE-LEVINE Test: See Skin test
STATISTICS: See Vital Statistics
STATURE: See Body height and weight
STATUS Asthmaticus: See Asthma
Thymicolymphaticus: See Thymus
STA-WAY" repellent for trombidiosis (chigger bites), [Sutton] *26
STEATORRHEA, Idiopathic: See Celiac Disease
STEINER, WALTER RALPH, death; portrait, 979
STEPHENSON, CHARLES S., director of commission to study typhus in war zones, 1044
STERILITY: See also Eunuchoidism
Inducing: See Castration; Sterilization, Sexual
Treatment: See also Impregnation, artificial
treatment, vitamin E, [Butt] *1035
STERILIZATION, BACTERIAL: See also Disinfection; Germicides
intradermal tests and unsterilized needles, 326
of Air: See Air, disinfection
of surgical rubber gloves, [Stuart] 241—ab
self-sterilizing plastics used for food containers, drug cups, etc., 127—E
tetanus from unsterile sulfonamide dusting powders, [Welch & others] *361
zephiran chloride, N. R. R., (description) 289; (Alba) 289
STERILIZATION, SEXUAL: See also Castration; Eunuchoidism; under Medicolegal Abstracts at end of letter M
expansion program recommended, Calif., 1406
in preventing pregnancy toxemia, [Eastman & Whitridge] *729
STERILIZATION, SEXUAL—Continued
of bitches by x-rays, 577
of lepers, Brazil, 1053
puerperal, [Hewitt] 1164—ab
STERNUM, intramedullary transfusion, 220; (needle left in 5 days) [Doud & Tysell] *1212
Marrow from: See Bone Marrow
puncture in diagnosis of abdominal typhoid, [Sprenger] 407—ab
STEROID: See also 17-Ketosteroids
hormones, antifibromatogenic action, [Lipschütz] *171
hormones on a cholesterol basis, [Herbst] *1116
STETHOSCOPE, value of, and cardiac murmurs, 1093—ab
STILBESTROL: See Diethylstilbestrol
STILLBIRTH in proteinuria in pregnancy toxemia, [Dieckmann & Kramer] *593; (discussion) 598
STIMATONE: See Pholedrine
STINGS: See Bees
STOCKINGS: See Hosiery
STOLUROW, P. J., chiropractor, sentenced—to leave Minnesota, 775
STOMACH: See also Digestive System; Gastrointestinal Tract
achylia (deficiency) in Spanish War, [Jiménez Garcia] 1257—ab
acidity, acceleration, in peptic ulcer in man who fed himself through large gastric fistula stoma, [Wolf & Wolff] *670
acidity, drip method for reducing, [Cornell] 1426—ab
acidity, inducing achlorhydria for ulcer by resection, [Friedell & others] *666
acidity, range of, 656
cancer and atrophic gastritis, [Shapiro] 238—ab
cancer in osteopoikilosis, [Ritterhoff] 1428—ab
cancer, incidence in prepyloric ulcers, [Kirklin & MacCarty] *733
cancer, residual lesions of ulcerative gastritis, [Judd] 1344—ab
cancer with pernicious anemia, [Doehring] 1249—ab
cascade: pain in chest, [Harrison] *522
corset and pad to hold it in position in woman with constipation, 492
diseases in military service, [Haemmerli] 1072—ab; [Demole] 1073—ab; [Kapp] 1073—ab
Disorders: See also Indigestion
disorders in armies of history, [Goldstein] 261—ab
disorders, Kimball Laboratories, 1243—BI
diverticulum: pain in chest, [Harrison] *523
emptying time and carminatives, [Van Liere] 1253—ab
emptying time, x-ray study of basis for duodenal ulcer therapy, [Shay & others] *740
Fistula: See Fistula
function, visible through large gastric fistula stoma, [Wolf & Wolff] *670
Hemorrhage: See Peptic ulcer
inflammation, atrophic, and cancer, [Shapiro] 238—ab
inflammation, gastric neurosis, in U. S. Army, [Kantor] *254
inflammation, hypertrophic, [Pollard] 77—ab
Intragastric Drip: See Peptic Ulcer
lesions in ascorbic acid deficiency, [Lund] 863—ab
lesions, ulcerating, [Pollard] 1067—ab
Resection: See Peptic Ulcer, surgical treatment
secretion, modern conception, [Thomas] *735
Surgery: See Peptic Ulcer, surgical treatment
Ulcer: See Peptic Ulcer
STOMATITIS, occupational, [Schour & Sarnat] *1197
STOMAVITA, 225—BI
STOOLS: See Feces
STOP, 67—BI
STOP-LITE Products, 67—BI
STORAGE, effect on vitamin C and on other nutrients, [Kohman] *832; *834
liens, liability of those in armed forces, (Bureau report) 539
of Blood: See Blood preservation
STORES, temperature (minimum) for, (Dr. Bristol's report) *371; 376—E
STRAIN: See Effort
STRANG Cancer Prevention Clinic, 463
STREAMS: See under Water
STREPTOCOCCUS, antistreptolysin titer in chronic glomerulonephritis, [Earle] 237—ab
fecalis group, succinylsulfathiazole effect on, [Lockwood] 268—ab
hemolytic, empyema, tyrothricin for, [Rammelkamp] 1251—ab
nonhemolytic, [Colebrook] 652—ab
specific type as cause of encephalitis, N. D. and Minn., [Rosenow] 1062—ab
Viridans Infection: See Endocarditis, subacute bacterial
STRETCHER (Neil Robertson), new type for merchant ships, 218
STRIKES: See Industrial Strikes
STRONTIUM, radioactive, for bone and bone marrow lesions, 1350
STROPHANTHIN, repeated injections for angina, 168
STRUMA: See Goiter
STUDENTS: See also Children, school; Education; Schools; Students, Medical; University
annual x-ray and serologic tests required at Hunter College, 463
Chinese, for Britain, 780
chiropractors' educational loan fund, 293—E
college, vitamin B1 and endurance: "pep" talks, [Karpovich] 78—ab
Commissions for: See Medicine and the War, students
health, A. M. A. Committee on, 628—OS
health, council to oversee at Wilson Teachers' College, 707
high school seniors eligible for college training, Stanford, 1406
loan fund appointments, 772
Nurses: See Nurses
tuberculosis survey of high school seniors, Minn., 214
vitamin C levels, England, [Harris] 242—ab
STUDENTS, MEDICAL: See also Education, Medical; Interns; Schools, Medical
British advice to those about to join medical corps, 465
British Medical Students' Association recommendations, 1410
Commissions for: See Medicine and the War, medical students
Fellowships: See Fellowships
freshman class applicants, vs. future supply of physicians; restrictive practices, 50—E
Graduate Work: See Education, Medical, graduate
loans, procurement of, 132; 703
National Board for Selection of, urge creation, [Rowntree] *1229
Prizes for: See Prizes
rising generation in medicine and Beckwith Whitehouse, 754—ab; [Gimbel] 1336—C
Scholarships: See Scholarships
Teaching: See Education, Medical
vitamin C survey, [Francis] 242—ab
STUDIO Girl Shampoo, 308—BI
STUTTERING: See Speech disorders
SUBMERSION: See Drowning
SUBMUCOUS Resection: See Nose septum
SUCCINYLSULFATHIAZOLE, also its value in colon surgery; toxicity, [Poth] *265
effect on Clostridium welchi and Streptococcus fecalis group, [Lockwood] 268—ab
SUCTION Treatment: See Tuberculosis Pulmonary
SUE SORRELL: See Sorrell
SUGAR: See also Candy; Carbohydrates; Dextrose
caries in bakers and candy makers, [Schour & Sarnat] *1201
in Blood: See Blood sugar
in Urine: See Diabetes Mellitus; Glycosuria
legal standards for jellies and jams, [Kohman] *837
nutritive value, [Maynard] *697; (Council report) 763
rationing, beneficial effect, [Wilder & Keys] *531
rationing for acutely ill patients in hospitals, 130
rationing for tobacco smokers, Europe, 547
rationing, National Research Council views on, (Council report) 765
vitamin, enriched, consideration of, (Council report) 764
voluntary consumption by child, [Jeans] *919
SUICIDES: See also Medicolegal Abstracts at end of letter M
drop in war: Metropolitan Life Insurance report, 768—E; 777
prognosis of carbon monoxide poisoning, [Van Amberg] 1342—ab
SULFADIAZINE, N.N.R., (tablets: Upjohn) 373; (powder, tablets: Abbott) 453; (tablets: Sharp & Dohme) 453
sodium, intravenously in subacute bacterial endocarditis, [Dick] *24
sodium salts of, 1401—E
Sodium Sulfadiazine, N.N.R., (tablets: Sharp & Dohme) 453
toxicity, complete anuria, [Louria & Solomon] *1354
toxicity, fatal urolithiasis, [Rottino] 1253—ab
toxicity, renal complications, [Wright & Kinsey] *1351
toxicity, "muddy urine" as danger sign, [Arnett] 68—C
Treatment: See Burns; Endocarditis; Pneumonia; Torula histolytica meningoencephalitis
use discontinued, New York, 546; 775
SULFAGUANIDINE, N.N.R., (powder, tablets: Squibb) 1127
toxicity, [Cole] *196
Treatment: See Colitis, ulcerative; Diarrhea; Typhoid carriers
SULFAMETHAZINE treatment, clinical use, [Macartney] 241—ab
SULFANILAMIDE, concentration in portal vein vs. systemic circulation, [Pearce] 982—C
Implant in Abdomen: See Abdomen

SULFANILAMIDE—Continued
sterile crystalline, N.N.R. (Hynson, Westcott), 373
Treatment: See also Appendicitis; Diphtheria, nasal; Rheumatic Fever; Smallpox
treatment, intraperitoneal use, 167; [Pearce] 982—C
treatment, local, in fractures, [Jensen] 318—ab; [Frankel & Funsten] ★1384
treatment plus serum in appendicitis, [Ortmann] 162—ab
treatment, transthoracic injection, 857
2-SULFANILYL-4,6-DIMETHYLPYRIMIDINE, sulfamethazine, [Macartney] 241—ab
SULFANILYL SULFANILATE, sodium, treat rectal stricture from venereal lymphogranuloma, [Levy] 231—ab
SULFAPYRIDINE, as hemostatic agent, [Cunningham] 72—ab
N.N.R. (tablets, Stearns) 373
Sodium, N.N.R., (powder, Lederle) 289
to be furnished to supply stations, N. Y., 546
toxicity, anuria, [Schroeder] 162—ab; [Keitzer] 1342—ab
Treatment: See Gonorrhea; Poliomyelitis
SULFARSPHENAMINE Bismuth: See Bismarsen
SULFASUXIDINE: See Succinylsulfathiazole
SULFATHIAZOLE, growth of fibroblasts in serum containing, [Reed] 405—ab
in stored plasma to eliminate contamination, [Novak] 316—ab
N.N.R., (powder, tablets, Ciba) 289; (tablets, Stearns) 453; (tablets, Miller) 1039
oil in water emulsion of, [Ackman] 235—ab
ointment for pyogenic dermatoses, [Glicklich] 239—ab
sodium, iontophoresis, [Boyd] 566—ab
sodium salts of, 1401—E
sodium sesquihydrate solution for shipyard conjunctivitis, [Walter] 1157—C
succinylsulfathiazole effect on Clostridium welchi and Streptococcus fecalis group, [Lockwood] 268—ab
succinylsulfathiazole in surgery of large bowel; toxicity, [Poth] ★265
to be furnished to supply stations, N. Y., 546
toxicity, angioneurotic edema and dermatitis from oral use, [Dennie] ★197
toxicity, skin irritation, 1169
toxicity, voiding "muddy urine" a danger sign, [Arnett] 68—C
Treatment: See also Diarrhea; Dysentery; Endocarditis; Gonorrhea; Measles; Meningitis; Otitis Media; Pneumonia; Whooping Cough
treatment in one stage abdominoperineal rectal resection, [Jones] ★104
treatment, intraperitoneal use, 167
treatment, local, in colitis, reaction to, 578
treatment, local, in compound fractures, [Frankel & Funsten] ★1384
treatment, local ("warm drip") for wounds, [Green] 1165—ab
treatment of children; dosage, secondary effects, [Herlitz] 321—ab
SULFIDE: See Ammonium Hydrogen Sulfide
SULFOCYANATE: See Potassium thiocyanate
SULFONAMIDE COMPOUNDS, action on intestine of rabbits, [Lindelöf] 162—ab
dusting powder (unsterile), tetanus from, [Welch & others] ★361
effect on phagocytosis by leukocytes, [Reed] 405—ab
effect on thrombocytes and leukocytes in rabbits, [Lindelöf] 487—ab
elimination in human milk, [Cibils Aguirre] 485—ab
fail to interfere with antibody response, [Bukantz] 68—C
in urine, simple qualitative test, [Monto] 239—ab
sodium salts of, 1401—E
Sulfadiazine: See Sulfadiazine
Sulfaguanidine: See Sulfaguanidine
Sulfanilamide: See Sulfanilamide
Sulfapyridine: See Sulfapyridine
Sulfathiazole: See Sulfathiazole
toxicity; etiologic role of, in periarteritis nodosa, [Rich] 1249—ab
toxicity in newborn of mothers given the drug in pregnancy, [Ginzler] 232—ab
toxicity, photosensitivity, [Park] 1435—ab
toxicity, renal complications, [Monto] 1341—ab
toxicity, voiding "muddy urine" a danger sign, [Arnett] 68—C
Treatment: See also Appendicitis; Gangrene, gas; Gonorrhea; Meningitis; Meningococcus infection; Otitis Media; Torula histolytica meningo-encephalitis; Wounds
treatment, intraperitoneal route, [Jentzer] 243—ab
treatment, intrasinal application, [Brown] 1248—ab
treatment, local, principles governing, [Osgood] 318—ab
treatment, local, problems in, [Klepser] 76—ab
treatment, procaine anesthetic and eusol not to be used with, [Matthews] 1256—ab
SULFONE treatment of tuberculosis with promin, [Barach] 792—ab; (using intravenous drip method) [Zucker] 792—ab
SULFOXYLATE, sodium formaldehyde, for acute mercury poisoning, [Wolpaw] 650—ab
SULFUR, dehydration of foods; effect on vitamin content, [Kohman] ★837; 855
metabolic balances; intake; retention, [Macy] ★39
SULFURAID-21, 1156—BI
SUN, atomic energy at center of, 195—ab
Dried Nova Scotia Dulse, 67—BI
SUNLIGHT: See Photosynthesis
Sensitivity to (Photosensitivity): See Light
SUN-RA Vitamin Ointment, 1334—BI
SUPERGLO Henna Rinse and Lux Hair Dye, 391—BI
SUPPURATION: See Abscess; Lymphatic System; Otitis Media; Parotitis
SUPRARENALS: See Adrenals
SUPRATENTORIAL Disease: See Brain
SURE, 641—BI
SURFACE Area: See Body
SURGEONS, air raid injuries and, 505—ab
American College of, cancels meeting, 633
Heroic Action: See World War II
Industrial: See Industrial Health
Military: See Medicine and the War; World War II
Negro first to perform successful cardiac suture: Dr. Daniel H. Williams, 348—ab
Orthopedic: See Orthopedics
Phillips (Arthur Osborne), criminal impersonator, 128—E; 145—BI; 461
Royal College of, (medal to Lord Nuffield) 464; 1330; (museum wrecked) 1330
war, J. M. T. Finney (?) statement in 1917, 1312—E
SURGERY: See also Amputation; Diathermy, surgical; Sterilization, Bacterial; under names of specific names of specific diseases and organs
Anesthesia in: See Anesthesia
fluid administration to patients, [Wangensteen] 1433—ab
history and evolution of instruments, Thompson's catalog, 1330
in Russia; Burdenko and his school, [Lepukain] ★1131
in Russian Army, [Filatov] ★54
Instruments: See Instruments
Neurologic: See Neurology
of the aged, [Thewlis] ★750
operating room deaths, [Turner] 648—ab
operating room, temperature of, (Dr. Bristol's subcommittee report) ★371; 376—E
operating unit in large van, 1045
operation hazard: chronic chlorosis, [Abbott] 1064—ab
operation prolonged, ether as anesthetic of choice, [Danna] 795—ab
Orthopedic: See Orthopedics
plastic, by roundstalk method, [Filatov] ★54
plastic of face, use Z plastics and skin flaps, [Smith] ★352
plastic, reconstruction ward at Manhattan General Hospital, 300
Postoperative Complications: See Embolism; Lungs collapse; Peritonitis; Thrombophlebitis; Thrombosis
postoperative distention and intestinal motility studies, [Puestow] ★903
postoperative effect of dicoumarin, [Allen & others] ★1010; ★1013; [Bollman & Preston] ★1021; 1040—E
Postoperative Shock: See Shock
risk: asthmatic patient, [Gaarde & others] ★431
Southeastern Surgical Assembly discontinued, 1150
Southern Surgical Association cancels meeting, 854
Suture: See Sutures
War: See also Surgeons, war
war, amputations: "guillotine" [Kirk] ★13
war, at American Hospital, Britain, [McCarthy] ★599
Western Surgical Association cancels meeting, 709
SURGICAL Gloves: See Rubber gloves
Shock: See Shock
Tubing: See Tube
SUR-WAY Electric Hair Brush Company, 1243—BI
SUTURE, new instrument for, with continuously threaded needle, [Goodman] ★281
sheep intestines for, 294; 547
SWALLOWING, dysphagia in blood diseases, 1152
dysphagia in myasthenia gravis with acute onset, [Lieberman] ★1209
SWEAT, disabling hyperhidrosis, amytal prevents, [Hoffman & Pobirs] ★445
Perspir-ator, Turkish bath outfit, 146—BI
sodium chloride or urea "frost" on skin in uremia, 802
SWIMMING: See also Drowning
in cold water causes exostosis in ears [Fowler] 1340—ab
protecting men swimming around after destroyer sinks, [McIntire] ★1137
SWINDLERS: See Impostors
SWINE: See Hogs
SYDENSTRICKER, V. P. W., appreciation of Ministries of Food and Health, 636
SYLNASOL, injection of internal hemorrhoids; syncope after, 167
SYMPATHECTOMY, treatment for asthma, 86
SYMPATHETIC Nervous System: See Nervous System, Sympathetic
SYNCOPE: See also Vertigo
after injecting internal hemorrhoids with sylnasol (sodium psylate), 167
Carotid Sinus: See Carotid Sinus
reactions (fainting) in blood donors, [Williams] 483—ab
SYPHILIS: See also Gumma; Venereal Disease; under specific organs or disease affected
Cardiovascular: See Cardiovascular Disease
Cerebrospinal: See Neurosyphilis
congenital and acquired in infants and children; massive mapharsen intravenously, [Levin & others] ★1373
congenital, asymptomatic; advise examining spinal fluid, 490
congenital infantile, arteritis as sign, [Torres-Umaña] 992—ab
congenital, treatment in 3 month old, 168
control, civilian measures for, in World War II, [Aselmeyer] ★880
Diagnosis: See also Syphilis, serodiagnosis
diagnosis in wartime, [Stokes] ★1094
employing persons with, [Anderson & others] ★830; (correction) 1051
in Armed Forces: See Medicine and the War, venereal disease
in Pregnancy: See Pregnancy,
latent, possible mucocutaneous relapse, 1350
mortality in arsenotherapy, [Chaná C.] 723—ab
Neurosyphilis: See Neurosyphilis
reinfection, 3 primary lesions in one person in 10 years, [Herman] ★283
research with Wassermann and Kahn tests, Argentina, 303
Serodiagnosis: See also Kahn Test; Wassermann Test
serodiagnosis, in wartime, [Stokes] ★1094
Tertiary: See Gumma
transmission, intradermal tests and unsterilized needles, 326
Treatment: See also under other subheads
treatment, bismarsen [Beerman & others] ★333; (discussion) 346
treatment, bismuth compounds, also combined with arsenicals; results at U. of Chicago Clinics vs. Cooperative Clinical Group, [Kahn & Becker] ★338 (discussion) 346
treatment, bismuth hepatitis; at San Quentin prison; previous arsphenamine, diet and alcoholism, [Kulchar & Reynolds] ★343
treatment, de Kruif's article on one day cure in *Reader's Digest*, 48—E; [Cole] 226—C
treatment, foreshortened intensified, [Stokes] ★1095
treatment, in patient with tongue cancer, 872; (reply: use of sobisminol mass) [Hanzlik] 1444
treatment, iodides, in tuberculous, 802
treatment, mapharsen intensive 10 day syringe method, [Schoch] 153—ab
treatment, mapharsen (massive), cerebral reactions, [Thomas] 1247—ab
Wassermann-fast syphilis, bismarsen in, [Beerman & others] ★336
SYPHILOLOGY, American Board of, examination, 384
SYRACUSE University, teaching day on chemical warfare, 632
SYRUPS, nutritive value, [Maynard] ★697

SOCIETIES AND OTHER ORGANIZATIONS

Acad.—Academy	*Med.—Medicine*
Am.—American	*Nat.—National*
A.—Association	*Pharm.—Pharmaceutical*
Coll.—College	*Phys.—Physicians*
Conf.—Conference	*Rev.—Revision*
Cong.—Congress	*Ry.—Railways*
Conv.—Convention	*Soc.—Society*
Dist.—District	*Surg.—Surgery*
Hosp.—Hospital	*Surgs.—Surgeons*
Internat.—International	*S.—Surgical*
M.—Medical	

Adams County (Ill.) M. Soc., 973
Aero M. A. of the United States, 633
Aid A. of the Philadelphia County M. Soc., 853
Albany (N. Y.), M. Soc. of the County of, 1049
Allergy, Fifth Annual Forum on, 1409
Am. Acad. of Ophthalmology and Otolaryngology, 301, 854
Am. Acad. of Pediatrics, 136, 634, 1238, 1328
Am.. Acad. of Physical Med., 384
Am. Acad. of Tropical Med., 634
Am. A. for the Advancement of Oral Diagnosis, 464
Am. A. for the Advancement of Science, 1238, 1328
Am. A. of Cereal Chemists, 462
Am. A. of Neuropathologists, 384
Am. A. of Obstetricians, Gynecologists and Abdominal Surgs., 61, 854
Am. A. of Scientific Workers, 1238
Am. Board of Dermatology and Syphilology, 384

Societies, Medical—Continued
Am. Board of Obstetrics and Gynecology, 777, 1051
Am. Board of Pediatrics, 464, 1150
Am. Bureau for M. Aid to China, 1327
Am. Chemical Soc., 384; N. Y. Section, 974
Am. Child Health A., 1050
Am. Clinical and Climatological A., 216
Am. Coll. of Phys., 546, 1150
Am. Coll. of Radiology, 853
Am. Coll. of Surgs., 633
Am. Cong. of Physical Therapy, 384, 854, 976
Am.-Cuban Fund of Helping the Allies, 1329
Am. Dental A., 135
Am. Diabetes A., 216
Am. Electrotherapeutic A., 853
Am. Foundation for the Blind, 634
Am. Foundation for Tropical Med., 631
Am. Friends of the Hebrew University, 776
Am. Gastroenterological A., 709
Am. Gynecological Soc., 298
Am. Hosp. A., 1051, 1147, 1406
Am. Institute of Nutrition, 547
Am. Jewish Phys. Committee, 776
Am. Laryngological A., 1150
Am. M. Women's A., 62, 1051, 1409
Am. Mission to Lepers, 463
Am. Museum of Health, 1408
Am. Museum of Natural History, 854
Am. Neisserian M. Soc., 1409
Am. Nurses A., 634
Am. Pharm. A., 777; New York Branch, 1327
Am. Physiotherapy A., 633
Am. Psychiatric A., 634
Am. Psychological A., 61
Am. Public Health A., 216, 464, 631, 634, 774, 854, 1238
Am. Radium Soc., 853
Am. Red Cross, 463, 975
Am. Red Cross Blood Donor Service, 384
Am. Roentgen Ray Soc., 61, 384, 853, 854
Am. Science Teachers A., 1238
Am. Soc. for Horticultural Science, 1238
Am. Soc. for the Control of Cancer, 463, 464; New York State Committee, 708
Am. Soc. for the Hard of Hearing, 216
Am. Soc of Anesthetists, 975
Am. Social Hygiene A., 1328
Am. Soc. of Parasitologists, 1238
Am. Soc. of Tropical Med., 634, 1238
Am. Student Health A., 1328
Am. Urological A., 1238
Arapahoe County (Colo.) M. Soc., 461
Arizona State M. A., 774
Arkansas M. Soc., 1236
Army Influenza Commission, 1327
Associacao Medica do Instituto Penido Burnier of São Paulo, Brazil, 778
A. for Preservation of the Present Am. System of M. Practice, 1328
A. for Research in Ophthalmology, 775
A. of Am. M. Colleges, 464, 976, 1329, 1407
A. of Life Insurance M. Directors of America, 547
A. of Military Surgs. of the United States, 634, 1238, 1329
Baltimore City M. Soc., 1049
Berks County (Pa.) M. Soc., 1149
Biological Photographic A. Inc., 61
Boston Psychoanalytic Clinic, 707
Bridgeport (Conn.) M. Soc., 461
British Bureau of Hygiene and Tropical Diseases, 1409
British M. A., 217
Brooklyn, (N. Y.) Acad. of Med. of, 852
Brooklyn (N. Y.) Institute of Arts and Sciences, 852
Buffalo (N. Y.) Acad. of Med., 1148
Cabell County (W. Va.) M. Soc., 61
California Heart A., 707
Cambria County (Pa.) M. Soc., 546, 633
Canadian Hosp. A., 216
Canadian M. A., 216
Canadian Public Health A., 137
Canadian Red Cross Soc., 778
Canadian Tuberculosis A., 137
Central A. of Obstetricians and Gynecologists, 61
Central Clinical Research Club, 709
Central Inter-Urban Clinical Club, 709
Central Soc. for Clinical Research, 709, 1051
Central State Soc. of Industrial Med. and Surg., 1326
Chicago Dental Soc., 631
Chicago Heart A., 851, 1327
Chicago, Institute of Med. of, 545, 774, 1048, 1327, 1406
Chicago M. Soc., 851; Englewood and North Side branches, 1326
Chicago Orthopaedic Soc., 381
Chicago Soc. of Internal Med., 545, 774, 1327
Chicago, Soc. of M. History of, 774
Chicago Urological Soc., 1048
Children's Fund of Michigan, 632, 1407
Chilean Nat. Radium Institute of Santiago, 1406
China, Science Soc. of, 60
Cincinnati, Acad. of Med. of, 776
Citizens Aid Soc. of Minneapolis, 1148
Clearfield (Pa.) M. A., 300
Cleveland, Acad. of Med. of, 776, 1328
Cleveland M. Service A., 1328
Colorado State M. Soc., 1048
Columbia (S. C.) M. Soc., 777
Columbus (Ohio) Acad. of Med., 853
Connecticut Soc. of Pathologists, 461
Connecticut State M. Soc., 213
Cortland County (N. Y.) M. Soc., 708
Dallas (Tex.) Southern M. Soc., 1408
Dane County (Wis.) M. Soc., 1051
Dauphin County (Pa.) M. Soc., 1149, 1237
Davidson County (N. C.) M. Soc., 300
Delaware Anti-Tuberculosis Soc., 216
Delaware, M. Soc. of, 381
Denver, M. Soc. of the City and County of, 545
Detroit Dist. Dental Soc., 632
Detroit, Engineering Soc. of, 632
Detroit, Health Council of Metropolitan, 1407
Detroit Pediatric Soc., 632
Detroit Physiological Soc., 632
Dist. of Columbia, M. Soc. of the, 59, 213, 381, 1147, 1326
Dist. Soc. for the Prevention of Blindness, 1147
El Paso County (Colo.) M. Soc., 1326
Essex County (N. J.) M. Soc., 974
Fayette County (W. Va.) M. Soc., 61
Federation for the Support of Jewish Philanthropic Societies of New York City, 1049
Fifth Dist. (Ga.) M. Soc., 973
Florida Council for the Blind, 1326
Florida Industrial Commission, 774
Fremont County (Colo.) M. Soc., 1326
Gibson County (Ind.) M. Soc., 214
Gloucester County (N. J.) M. Soc., 974
Greater New York Hosp. A., 776
Greenville County (S. C.) M. Soc., 777
Grocery Manufacturers of America, 1409
Harrisburg (Pa.) Acad. of Med., 300, 853, 1237
Heart Council of Greater Cincinnati, 776
Hendricks County (Ind.) M. Soc., 707
Hennepin County (Minn.) M. Soc., 214, 1237
Hennepin County (Minn.) Tuberculosis A., 214, 1237
Hollywood (Calif.) Acad. of Med., 1048
Huntingdon County (Pa.) M. Soc., 1149
Idaho Public Health A., 973
Idaho State M. A., 59, 707
Illinois A. for the Crippled, Inc., 1236
Illinois Neuropsychiatric Institute, 1406
Illinois Public Health A., 631, 1326
Illinois State M. Soc., 707
Indiana State M. A., 134, 707
Indiana Tuberculosis A., 707, 1326
Industrial Hygiene Foundation, 778, 1329
Institute of Inter-Am. Affairs, 1328
Inter-Am. Statistical Institute, 778
Internat. Health Division of the Rockefeller Foundation, 854
Inter-State Postgraduate M. A. of North America, Internat. M. Assembly, 301
Iowa Anesthesiological Soc., 545
Jefferson County (Ky.) M. Soc., 631, 1048
Kankakee County (Ill.) M. Soc., 1048
Kansas City (Mo.) Southwest Clinical Soc., 299
Kansas M. Soc., 775
Kansas Soc. of New York, 1050
Kentucky State M. A., 134, 631
King County (Wash.) M. Soc., 383
Kings (N. Y.), M. Soc. of the County of, 852
Lackawanna County (Pa.) M. Soc., 975
Lake County (Ind.) M. Soc., 1407
La Porte County (Ind.) M. Soc., 462
London, Royal Institute of Public Health and Hygiene, 216, 1409
London, Royal Soc. of, 60
London, Royal Soc. of Tropical Med., 1409
Los Angeles County M. A., 631
Los Angeles Heart A., 631, 707
Los Angeles Tuberculosis and Health A., 707
Louisville (Ky.) Medico-Chirurgical Soc., 1048, 1407
Louisville (Ky.) Soc. of Med., 631
Macon County (Ill.) M. Soc., 973
Maine M. A., 59
Marion County (Ind.) Tuberculosis A., 707
Maryland State Industrial Accident Commission, 1329
Massachusetts Hosp. A., 1147
Massachusetts Medico-Legal Soc., 136
McLean County (Ill.) M. Soc., 1048
M. Club of Philadelphia, 1050
M. and S. Relief Committee of America, 136
M. Library A., 216
Menninger Foundation for Psychiatric Education and Research, 709
Mercer County (Pa.) Tuberculosis and Public Health Soc., 300
Mexico City, Institute of Public Health and Tropical Diseases of, 1326
Michigan Crippled Children Commission, 59, 214
Michigan State M. Soc., 134, 775
Milwaukee County (Wis.), M. Soc. of, 301, 1150
Minnesota Acad. of Med., 1237
Minnesota Education A., 545
Minnesota Mental Hygiene Soc., 299
Minnesota Public Health A., 545
Minnesota State Conf. of Social Work, 775
Minnesota State M. A., 775, 1150
Mississippi Valley Conf. on Tuberculosis, 62, 382
Mississippi Valley M. Soc., 1236
Mississippi Valley Trudeau Soc., 62
Missouri State M. A., 775
Montana, M. A. of, 60
Montana Public Health A., 382, 974
Montreal (Canada) Clinical Soc., 301
Nassau County (N. Y.) M. Soc., 1148
Nat. A. of Coroners, 216
Nat. A. of Science Writers, 136
Nat. Board of M. Examiners, 1150
Nat. Canners A., 1408
Nat. Chemical Exposition, 709
Nat. Committee for Mental Hygiene, 708, 709
Nat. Conf. on M. Service, 1150
Nat. Foundation for Infantile Paralysis, 61, 301, 546, 777, 974, 1328, 1408, 1409
Nat. League of Nursing Education, 384
Nat. Malaria Soc., 634, 1238
Nat. Research Council, 214
Nat. Safety Council, 62, 299, 547, 1150
Nat. Science Fund, 1150
Nat. Soc. for Crippled Children, 634
Nat. Soc. for the Prevention of Blindness, 464, 775, 1238
Nat. Tuberculosis A., 216, 301, 534, 975, 1051, 1328
Nebraska State M. A., 1148
Nevada State M. A., 215, 852
New England Soc. of Anesthesiology, 462
New Jersey, Acad. of Med. of Northern, 546
New Jersey, M. Soc. of, 1327
New Mexico M. Soc., 135
New York Acad. of Med., 135, 215, 382, 708, 974, 1049, 1407
New York A. for Jewish Children, 1049
New York City Cancer Clinic, 708
New York City Committee on Mental Hygiene, 852
New York Heart A., 383, 852, 1049
New York Hosp., Soc. of the, 60
New York Institute of Dietetics, 1407
New York, M. Soc. of the State of, 215, 463, 632, 776; Sixth Dist. Branch, 135; Fourth, Third, Fifth and Seventh district branches, 382
New York Soc. of Tropical Med., 1238
New York State Charities Aid A., 852, 1407
New York, Temporary Commission on Hosp. Problems, 1327
New York, Women's M. A. of, 1238
Ninth Councilor Dist. (Ark.) M. Soc., 1236
North Carolina, M. Soc. of the State of, 546
North Central M. Conf., 1150
Northeast Arkansas M. Soc., 973
Northeast (Miss.) Thirteen County M. Soc., 299
Northern California Public Health A., 707
Northern Minnesota M. A., 299
Northwest Regional Conf., 1150
Nutrition Foundation, Inc., 1051
Ohio State M. A., 546, 776
Oklahoma City Clinical Soc., 633
Oklahoma State M. A., 215, 708
Omaha (Neb.) Mid-West Clinical Soc., 60
Oneida County (N.Y.) M. Soc., 1407
Onondaga County (N.Y.) M. Soc., 463
Ontario (Canada) Health Officers A., 137
Oregon Phys.' Service, 975
Oregon State M. Soc., 60, 633, 975
Palo Alto County (Ia.) M. Soc., 1407
Pan-American Sanitary Conf., 62, 775
Parke-Vermillion County (Ind.) M. Soc.
Parmly Foundation for Auditory Research, 1406
Pennsylvania, M. Soc. of the State of, 136, 776; Tenth Councilor Dist., 300; Second Councilor Dist., 383
Pennsylvania Psychiatric Soc., 1050
Pennsylvania Tuberculosis Soc., 60, 300
Peoria County (Ill.) M. Soc., 707
Philadelphia, Coll. of Phys. of, 633, 975, 1149, 1237, 1408
Philadelphia County M. Soc., 136, 383, 633, 1149, 1237, 1408
Philadelphia Roentgen Ray Soc., 975
Philadelphia Tuberculosis and Health A., 1050
Philadelphia Tuberculosis Conf., 1050
Pierce County (Wash.) M. Soc., 383
Polk County (Ia.) M. Soc., 1407
Post Graduate M. Assembly of South Texas, 853
Prince Georges County (Md.) M. Soc., 1327
Providence (R.I.) M. A., 776
Radiological Soc. of North America, 976, 1409
Ramsey County (Minn.) M. Soc., 1237
Randolph County (Ind.) M. Soc., 214
Reading (Pa.) Eye, Ear, Nose and Throat Soc., 975, 1237
Rhode Island, Children's Heart A. of, 776
Rhode Island M. Soc., 216
Rochester (N.Y.) Acad. of Med., 300
Rockefeller Foundation, 59
Rocky Mountain M. Conf., 464
St. Louis M. Soc., 1049, 1148
St. Louis Soc. for the Blind, 775
St. Louis, Tuberculosis and Health Soc. of, 382
Salmon Committee on Psychiatry and Mental Hygiene, 546
San Francisco County M. Soc., 1048, 1326
Schuylkill County (Pa.) M. Soc., 633
Seattle (Wash.) Acad. of Med., 383
Sedgwick County (Kan.) M. Soc., 775
Sociedade de Oftalmologia de São Paulo, Brazil, 778
Soc. for the Study of Asthma and Allied Conditions, 976
Soc. of Am. Bacteriologists, 1238
Soc. of Experimental Biology and Med., New York Section, 1238
Soc. of Illinois Bacteriologists, 1236
Soc. of the Sigma Xi, 854
Southeastern S. Cong., 1150
Southern Illinois M. A., 1326
Southern M. A., 634
Southern Minnesota M. A., 462
Southern Oregon M. Service, 975
Southern Psychiatric A., 633

Societies, Medical—Continued
Southern S. A., 854
Southern Trudeau Soc., 1051
Southern Tuberculosis Conf., 1051
Southwestern Pediatric Soc., 631
State and Provincial Health Authorities of North America, 1050
Sunbury-Northumberland (Pa.) Tuberculosis and Health Soc., 300
Syracuse (N.Y.) Acad. of Med., 463, 1049
Tacoma (Wash.) S. Club, 383
Texas Dist. M. A., North, 1408
Texas Radiological Soc., 61
Texas State A. of M. Anesthetists, 300
Third Councilor (Ark.) M. Soc., 973
Transylvania (Ky.) M. Soc., 1407
Tuberculosis Sanatorium Conf. of Metropolitan New York, 852
University of Wisconsin M. Soc., 1150
Utah State M. A., 383
Vermont State M. Soc., 300
Virginia, M. Soc. of, 301, 777
Virginia Pediatric Soc., 1149
Virginia Radiological Soc., 1149
Virginia, Soc. of Chest Physicians of, 301
Virginia Urological Soc., 1149
W. K. Kellogg Foundation, 59
Washington State M. A., 633
Wayne County (Mich.) M. Soc., 632
Westchester (N.Y.) Cancer Committee, 60
West Virginia State M. A., 61, 136, 464
Western S. A., 709
Will-Grundy Counties (Ill.) M. Soc., 973
Wisconsin Anti-Tuberculosis A., 1051
Wisconsin, State M. Soc. of, 709
Worcester (Mass.) Dist. M. Soc., 299, 1049
Wyandotte County (Kan.) M. Soc., 775
Wyoming State M. Soc., 383

T

TABES DORSALIS, lightning pains, thiamine hydrochloride for, [Cochems] 1247—ab
with beginning optic atrophy; treatment advised, 728
TACHYCARDIA, paroxysmal, tissue extracts and circulation, 326
TACHYSTEROL, dihydro: See Dihydrotachysterol
TALKING: See Speech
TALLNESS: See Body height
TARO, nutritive value, [Wilder & Keys] ★533
vegetable milk recipe, [Feingold] 480—ab
TARTAR, Cream of: See Potassium bitartrate
Emetic: See Antimony Potassium Tartrate; Medicolegal Abstracts at end of letter M
TAX, income, credit of victory tax to, (Bureau report), 1145—OS
victory, and medical profession, (Bureau report) 1143—OS
TAYLOR, DEEMS, radio tribute to physicians, 699—E
TEACHING: See Education, Medical
TECHNICIANS: See also Laboratories; Physical Therapy
medical department, U. S. Army school for, 769
School for: See also Laboratories; Physical Therapy
school for, training courses, 1221
TEETH: See also Dentistry; Jaws
caries and atherosclerosis relation to diet deficiency, [Davis] 68—C
caries and fluorine [Shils & McCollum] ★615; (cooperative study, Escanaba) 1147
caries, rampant in 4 year old, 1261
conditions and vitamin C deficiency in mental patients, [Barahal] 233—ab
extraction, danger in menstruating woman? 1079
extraction, fatal embolism after, 578
extraction, hemiplegia after injecting local anesthetic for, 996
extraction, submaxillary infections after, [Orton] ★876
industrial abrasion, decalcification and caries, [Schour & Sarnat] ★1197
industrial exposure to citric acid affect, 658
infected, pathways for pain around larynx from, 656
mottled enamel, relation to fluorine, [Shils & McCollum] ★615; [Kemp] 796—ab
One Minute Toothache Stick, 552—BI
TEMPERATURE: See also Climate; Cold; Heat; Seasons; Tropics
of room, effect on ascorbic acid values of vegetables, [Kohman] ★833
of room, stores, hospitals, etc., and fuel rationing, (Dr. Bristol's report) ★370; 376—E; 456—E; [Dean] 472—C (N. Y.) 708
of water necessary to produce burn, 325
TEMPERATURE, BODY: See also Fever
intermittent hypothermia with disabling hyperhidrosis; amytal prevents, [Hoffman & Pobirs] ★445
"TEMPLATE" theory in immunology, 1309—E
TERATOMA, intrapericardial, surgical removal, [Beck] 397—ab
TERMINOLOGY: See also "Words and Phrases" under Medicolegal Abstracts at end of letter M
Basle Nomina Anatomica: British "revision," 658
TERMINOLOGY—Continued
coronary occlusion terms misleading, [Master] 392—C
improper use of "etiology"; "there was no pathology"; "negative serology," [Fox] 787—C
pathology, definition of, at Yale, [Perry] 983—C
renal pressor system, 923—E
wages defined, (Bureau report) 1143—OS
TERRY LECTURE: See Lectures
"TEST TUBE BABY": See Impregnation
TESTIS: See also Gonads; Spermatozoa; Medicolegal Abstracts at end of letter M
excision (bilateral) for prostate cancer, [Alyea & Henderson] ★1099; [Nesbit & Cummings] ★1109; [Gutman] ★1115
glandular atrophy with ptosis; surgical treatment of varicocele, 1054
Hormone: See Androgens
inflammation (severe) in mumps, surgical treatment, [Wesselhoeft] 864—ab
new syndrome, 1400—E
puncture, spermatozoa aspirated from, injected into cervix, [Guttmacher] ★443; (priority) [Huhner] 787—C
undescended, controlled chorionic gonadotropin effect in one twin, [Greene] ★1195
TESTOSTERONE propionate: See Androgens
TETANUS, antiserum injection; paralysis after, [Floyd] 240—ab
antitoxin prophylactic for all battle casualties, 856
compared with gas gangrene bacilli dissemination, [Lippelt] 1346—ab
from eye injury, [Wetzel] 477—ab
from unsterile sulfonamide dusting powders, [Welch & others] ★361
immunization, (concurrent) [Miller] 316—ab
TETANY in blood donors, [Frazer] 483—ab
parathyroid, in pregnancy; effect of calcium lactate, dihydrotachysterol, vitamin D_2, 87
TETRAETHYLTHIURAM monosulfide for scabies, [Gordon] 241—ab
TEXAS, University of: See University
THALASSANEMIA: See Anemia, erythroblastic familial
THEOBROMINE, WPB Conservation order M-222, 210
THELORYSUS, 67—BI
THEOPHYLLINE WITH ETHYLENEDIAMINE, Aminophyllin, N.N.R., (tablets, Smith-Dorsey) 373
treatment of asthma, 1261
THERAPEUTICS: See also Blood Transfusion; Diathermy; Drugs; Fever, therapeutic; Physical Therapy; Psychotherapy; Roentgen Therapy; etc., under names of specific substances and diseases
recreation a sovereign remedy, 329—ab
THIAMINE HYDROCHLORIDE: See also Vitamins B_1
added to child's diet, [Jeans] ★919
adding sodium bicarbonate to vegetables causes loss of, [Kohman] ★834
clearance as nutritional index, [Melnick] 650—ab
in American diet, [Kohl] 69—C
in relation to plant growth, 207—E
in various foods; chemistry; clinical aspects, [Elvehjem] ★1389
N.N.R., (tablets, Breon) 45; (tablets, solution, Lakeside), 1039
recommended daily allowances, [Wilder & Keys] ★530; (in British diet) ★534
requirement of man, [Melnick] 650—ab
sugar interferes with satisfactory supply, (Council report) 764
treatment of beriberi heart in infant fed on boiled human milk, [Rascoff] ★1292
treatment of tabetic lightning pains, [Cochems] 1247—ab
THIGH, live shell removed from, England, 1239
THINNESS: See under Body weight; Emaciation
THIOCYANATE, Potassium, Treatment: See Blood Pressure, high
THIOSULFATE: See Sodium
THIOUREA as fruit spray, 207—E
THIRST, sea water enemas to relieve, 165; [Bradish & others] ★683
THOMAS Home Treatment Kit, 785—BI
Splint: See Splint
THOMPSON, C. J. S., history of instruments in Royal College of Surgeons, 1330
THOMSEN phenomenon, irregular isoagglutinins, [Davidsohn] ★1288
THORACIC DUCT, operative injury of, 491
THORAX: See also Pneumothorax
bullet wounds of pulmonary vessels and speed of death, 1080
chest clinics, Maryland, 632
chest examination for nursery personnel, N. Y., 632
chest injury and coronary occlusions, [Leinoff] 314—ab; 646—ab; 787—C; [Master] 392—C; [Sigler] 1335—C
chest pain (functional) [Goodrich] 239—ab
chest pain in mitral stenosis, "hypercyanotic angina," [Burgess] 78—ab
chest pain, some puzzling aspects, [Harrison] ★519
chest squeezed tightly: dangerous anesthetic method, 801
THORAX—Continued
chest wall injuries, reflex pulmonary atelectasis, [de Takats & others] ★686
sulfanilamide therapy by transthoracic injection, 857
THORPE ophthalmic endoscope for removing foreign bodies, [Spaeth] ★663; ★664
THREADWORMS: See Oxyuriasis
THROAT: See also Larynx; Nasopharynx; Neck; Otolaryngology
manifestations of blood diseases, 1152
sore, symptom in pulmonary tuberculosis, [Donnelly] ★675
THROMBOANGIITIS OBLITERANS, effect of dicoumarin, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Butsch & Stewart] ★1025
THROMBOCYTES: See Blood platelets
THROMBOCYTOPENIA: See Purpura, thrombopenic
THROMBOPHLEBITIS, dicoumarin effect on, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Butsch & Stewart] ★1025; 1040—E
lymphedema after sprained ankle due to, [Fine & Starr] 1262
of legs and pulmonary embolism; value of venogram, [Fine] 1340—ab
postoperative, exercises in, [Krebs] 233—ab
septic, [Orton] ★878
THROMBOSIS: See also Embolism; Thrombophlebitis
carotid, [Fracassi] 486—ab
Coronary: See also Arteries, coronary occlusion; Myocardium, infarction
coronary (acute) in industry, [Leinoff] 314—ab; 646—ab
coronary, conditions commonly confused with, [Harrison] ★520
coronary, exercise after, 1350
coronary, pontocaine hydrochloride anesthesia not cause of, 2 weeks later, 728
cononary, relation to trauma, [Master] 392—C; [Leinoff] 787—C; [Sigler] 1335—C
coronary, shock in, use of transfusion for, 1350
effect of dicoumarin, [Allen & others] ★1009; [Wright & Prandoni] ★1015; [Butsch & Stewart] ★1025; 1040—E; [Butsch] 1249—ab
injury (sudden) (slipped—caught from falling) and thrombosed hemorrhoid, 325
portal, in portal hypertension, [Reich] 648—ab
postoperative, heparin for, [Priestley] 481—ab
treatment, heparin, [Bauer] 1166—ab
treatment, phlebography applied to, [Welch] 569—ab
varicose veins and, [Gault] 397—ab
venous massive, shock from, desoxycorticosterone prevents, [Katz] 718—ab
THRUSH: See Moniliasis
THYMUS excision in myasthenia gravis, [Harvey] 1251—ab
hormone and basal metabolism, [Bomskov] 1258—ab
hormone, effect on blood sugar, [Bomskov] 1258—ab
hypertrophy of, 658
persistent, sudden death after test game from, [Cluver] 1161—ab
status thymicolymphaticus: beriberi heart in infant, [Rascoff] ★1292
THYPERNOL, 471—BI
THYROID: See also Goiter; Goiter, Toxic
allergy relation to, [Farmer] 648—ab
degeneration and premature aging, [Hogg] 236—ab
Excision: See Thyroidectomy
extract dosage rule per metabolism reading, 86
extract treatment of angina pectoris, [Fischer] 83—ab
extract treatment of habitual abortion, 86
extract treatment of Simmonds' disease, [Williams] 1250—ab
Hyperthyroidism: See Hyperthyroidism
pituitary interrelationship, [Severinghaus] 569—ab
THYROIDECTOMY, total, for heart disease, [Parsons] 155—ab
THYROTOXICOSIS: See Goiter, Toxic
TIBIA, fatigue fracture, 1239
graft in "combined operations" in low back and sciatic pain, [Ghormley & others] ★1171
TIC Douloureux: See Neuralgia, trigeminal
TICK Fever: See Rocky Mountain Spotted Fever
TICKS, transmit leprosy, 1053
TIN vs. glass containers for canned food, [Kohman] ★837
TINGLING and numbness of arms, 249
TIRE: See under Rubber
TIREDNESS: See Asthenia; Fatigue
TISSUES: See also Skin
animal, carbon dioxide utilization by, 454—E
diuretic: potassium, [Bansi] 653—ab
dystopic, origin of, [Gruenwald] 1253—ab
extracts and circulation, 326
Fat: See Lipodystrophy
protein (total), relation to serum albumin, 455—E
soft, citric acid content in vs. that in bone, 208—E
soft, injury, ethyl chloride spray for, [McIntosh] 1256—ab

TISSUES—Continued
transplantation stimulates biochemical processes, [Filatov] ★54
TOASTING affects vitamin content, [Kohman] ★838
TOBACCO, chewing, any drug to discourage young boy from? 491
cigaret smoking, effect on lactation and the nursling, [Perlman & others] ★1003
Redeemer, 225—BI
smokers, sugar ration for, Europe, 547
TOCOPHEROLS: See Vitamin E
TOMATOES, effect of storage and cooking, [Kohman] ★832; ★834
juice, commercial canning, [Kohman] ★834; ★835
nutritive value, [Maynard] ★695
TONGUE abscess, [Orton] ★875
atrophy, papillary, relation to diet deficiency and oral leukoplakia, [Abels] 74—ab
cancer patient, treatment of syphilis in, 872; (reply: use of sobisminol mass) [Hanzlik] 1444
inflammation in young child, 87
TONSILLECTOMY and poliomyelitis, [Toomey] 156—ab
TONSILS, Excision: See Tonsillectomy
TOOTH: See Teeth
TORONTO school children, height and weight, 768—E
TORULA histolytica meningoencephalitis; mastoidectomy and sulfadiazine cures, [Marshall & Teed] ★527
TOTAQUINE as quinine substitute, 1043
TOURNIQUET, danger in use in arrest of hemorrhage, 894—ab
TOXEMIA of Pregnancy: See Pregnancy
TOXICOLOGY: See Poisoning
TOXIN: See Dysentery, Whooping Cough
TOXOID: : See Diphtheria
TOXOPLASMOSIS, adult pulmonary, roentgen sign, [Sante] 151—ab
encephalomyelitis, [Dyke] 151—ab
T-P Preparation, 785—BI
TRACHEA, hemorrhage of nontuberculous origin, [Jackson] 565—ab
TRACHEOTOMY wound, insert rubber tube through, for laryngeal stenosis, [Jesberg] ★1000
TRACY, MARTHA, memorial fund (correction) 62
TRADE Hazard, Poisoning; etc.: See Industrial Diseases; Industrial Health; etc.
TRAFFIC Accidents: See Accidents; Automobiles
TRAINING Camps: See Medicine and the War
TRANSFUSION: See Blood Transfusion; Bone Marrow
TRANSPLANTATION: See Cancer; Cornea; Grafts (cross reference); Tissues
TRANSPORTATION of Sick and Wounded: See Ambulances
TRAUMA: See also Accidents; Casualty; Wounds; Medicolegal Abstracts at end of letter M; under specific organs, regions and diseases as Head; Peptic Ulcer; Thorax; Thrombosis, coronary
abnormality of fingernail from (new nail growing toward middle of phalanx), 1262
Athletic: See Athletics
Bombs causing: See Air Raids; Bombs; World War II
"crush or compression syndrome," [Duncan] 398—ab; 1052; [Patey] 1070—ab
Electric: See Electric injuries
headache and dizziness from, [Lehmann] 1064—ab
Industrial: See Industrial Accidents; Workmen's Compensation
rheumatic fever precipitated by, 248
Shock in: See Shock, traumatic
treatment, ethyl chloride spray in soft tissue injury, [McIntosh] 1256—ab
TREATMENT: See Therapeutics
TRICHINELLA antigen, active sensitization to detect trichinosis, [Baron] 479—ab
TRICHINOSIS, diagnosis, [Baron] 479—ab
immunity; 2 antibodies stimulated by Trichinella spiralis, 924—E
in pregnancy, 326
TRICHOMONAS buccalis, pneumonia apparently due to, [Glaubach & Guiler] ★280
TRICHOPHYTON Infection: See Dermatophytosis
TRICHOTONE, 785—BI
TRICHOVITA, 785—BI
TRICUSPID VALVE, acute bacterial endocarditis, [Goldburgh] 1061—ab
TRIETHANOLAMINE: See *tri*Ethanolamine
TROMBIDIOSIS (chigger bites), relief of itching with ethyl aminobenzoate, use of repellent, "Sta-Way," [Sutton] ★26
TROOPS: See Medicine and the War; World War II
TROPICAL DISEASES, British Bureau of Hygiene and, Sir Scott retires, 1409
lecture on, Pittsburgh, 463
prevention, chemotherapy, [Martini] 243—ab
studies at Stanford, grants for, 1048
TROPICAL MEDICINE course by Dr. Faust at U. S. Army Medical School, 213
courses and research at Tulane, 12 Latin American physicians start, 631
discussion at Royal Society of, by Christophers on quinine substitutes, 385
TROPICAL MEDICINE—Continued
teaching, cooperative plan to improve, Markle Foundation finances, 1329
TROPICS, industrial and health development in, [Dreisbach] ★1192
myiasis from warble fly, [Harrell] 403—ab
rural tuberculosis in Brazil, 1054
thiamine required twice as high in, [Elvehjem] ★1389
TRUDEAU Medal: See Prizes
School of Tuberculosis course, 60
TUBE feeding for peptic ulcer, [Winkelstein & others] ★743
rubber tubing inserted for laryngeal stenosis, [Jesberg] ★1000
surgical tubing, how to conserve, 847; 1134; (danger from cresol) [Waters] 1336—C
TUBERCLE BACILLUS, avirulent in sputum, [Corper & Cohn] ★427
TUBERCULIN, hemorrhagic reaction to purified protein derivative of, [Urbach] 1430—ab
test in clinical tuberculosis, 324
test in sarcoidosis, 575
test in tuberculosis in pregnancy, [Lichtenstein] 313—ab
test positive before whooping cough and tuberculosis, 387
TUBERCULOSIS: See also Tuberculosis, Pulmonary; and under names of specific diseases and organs
advisory committee, Illinois, 381
anal fistulas in, [Basunti] 992—ab
Canadian Tuberculosis Association, 137
case finding in Canadian Army, [Warner] 1063—ab; [Andrus] 1432—ab
case finding in employees, Wichita, 775
case finding in high school seniors, Minnesota, 214
case finding in Royal Air Force, [Trail] 158—ab
case finding in U. S. government employees, 976
Christmas Seal sale, (originator Miss Bissell awarded Trudeau medal) 216 (annual) 1051
complicating pregnancy, tuberculin reaction in, [Lichtenstein] 313—ab
complications, syphilis, iodides for, 802
Conference, Philadelphia, 1050
control, county "accreditation" new idea, Minn., 128—E; (Murray county) 299; (4 more counties) 1327
control in Detroit, de Kruif's statement at Pepper hearings, 922—E; 941; (reply) [O'Brien] 1413—C
control in Germany, 1313
control section created by U. S. Government, 217
course in, at Trudeau School, 60
Diagnosis: See also Tuberculosis, case finding
diagnosis (differential) from sarcoidosis, [Rakov] 399—ab; 575
diagnosis, parallelism of coccidioidomycosis, [Smith] 80—ab
diagnosis, tuberculin reaction positive, 387
diphtheria, anatoxin and, [Huët] 321—ab
etiology, daily exposures to arc welding fumes? [Gardner] 1065—ab
immunization, BCG (heat killed) injections in normal children: 4 reactions, 1053
immunization, BCG, in infants, Argentina, 1331
in Argentina, 1331
in childhood effect on that in early maturity, [Israel] 1339—ab
in East Harlem district, New York, especially Negroes and Puerto Ricans, 1311—E
in Paraguay, 1331
in Peru, 637
incidence in Emek Jezreel, Palestine, 303
increase, England, 465
Indiana Tuberculosis Association scholarship to W. S. Tucker, 707
Los Angeles Tuberculosis and Health Association creates heart division, 707
Mississippi Valley Conference on, and Mississippi Valley Trudeau Society conference, 62
mortality in husbands and wives, [Ciocco] 1069—ab
mortality rate, U. S., decline, 301
mortality statistics: is tuberculosis on the way out? 58—OS
National Tuberculosis Association (Dr. Lyght director of health education) 1328
Pennsylvania Tuberculosis Society (scholarship) 60; 300
primary, in adolescents and adults, [Leitner] 159—ab; [Jones] 1429—ab
prizes: Dearholt Medal, 382
prizes: Trudeau Medal, 216
rehabilitation program for, Pa., 463
rural, in Brazil, 1054
sanatoriums and preventoriums, Brazil, 140
sanatoriums, temperature (minimum) for, (Dr. Bristol's report) ★371; 376—E
Southern Tuberculosis Conference and Southern Trudeau Society, 1051
treatment, new scheme for, England, 1239; 1411
treatment, promin, [Barach] 792—ab; (using intravenous drip method) [Zucker] 792—ab
treatment, ultraviolet rays, (Council report) ★620
TUBERCULOSIS, PULMONARY, blood picture (hemograms) in, [Stobie] 313—ab
TUBERCULOSIS, PULMONARY—Continued
complications, bronchial tuberculosis with atelectasis (epituberculosis), [Jones] 1429—ab
diagnosis, calcium deposits in pulmonary parenchyma, 324
diagnosis, masquerading as laryngitis, [Donnelly] ★675
diagnosis (missed) in elderly, [Miller] 565—ab
diagnosis, pain and disability of shoulder and arm, [Travell & others] ★417
in servicemen, England, [Crawford] 796—ab
increase in Glasgow, [Laidlaw] 722—ab
intestinal involvement in, fever in, [Tchertkoff] 79—ab
sputum, avirulent tubercle bacilli in, [Corper & Cohn] ★427
surgical treatment, anesthesia in for, 140
treatment, cadmium sulfide, [Dormer] 565—ab
treatment, diet, [Sandler] 791—ab
treatment of minimal lesion, [Kruger] 313—ab
treatment, suction apparatus with mouth piece, [Rona] 1437—ab
treatment, ultraviolet rays, (Council report) ★621; ★623
TUBING: See Tube
TUCH-UP, 391—BI
TUFTS College, (Mr. Shapiro gives land to) 1147
TULANE University, (courses in tropical medicine; 12 Latin American physicians attend) 631; (graduate course at) 973 (plan to improve teaching of tropical medicine) 1329
TULAREMIA, suppurative lymphadenitis from, 578
vaccination, [Foshay] 1339—ab
TUMORS: See also under names of specific organs and types of tumors
Glomus: See Glomus Tumor
Malignant: See also Cancer
malignant, treatment with cold, [Smith] 1430—ab
mixed, of parotid gland, [Hemplemann] 234—ab
primary, multiple, [Schmidt] 865—ab
registry, American Gynecological Society sponsors, [Novak & others] 1057—C
treatment, rotation, [Nielsen] 1074—ab
TURKISH bath cabinet, Perspir-ator, 146—BI
TURNIPS, nutritive value, also the greens, [Maynard] ★695
TWINS, identical, cryptorchism and falsetto voice; effect of controlled chorionic gonadotropin therapy, [Greene] ★1195
identical, electroencephalographic tracings in 3 identical normal twins, [Lennox] ★450
TYPHOID: See also Paratyphoid
brain abscess after, surgical removal, [Odom] 792—ab
carrier state, sulfaguanidine for [Watt] 79—ab; [Hoagland] ★1211
carriers at state hospital, Illinois, 298
carriers, chronic biliary, [Coller] 1070—ab
diagnosis, sternal puncture, [Sprenger] 407—ab
etiology: atypical strain of Eberthella, [Harrell] 721—ab
in Chile, 1331
outbreak in Federal District, Mexico, 219
treatment, sulfaguanidine, [Watt] 79—ab
vaccination in U. S. Army; use 3 subcutaneous doses of triple vaccine, (correction) 88
vaccination, Vi antibody vs. various vaccines, [Climie] 1345—ab
vaccine, pyogenic reaction in hypertension, [Chasis] 237—ab
vaccine treatment of tic douloureux, 658
vaccine (triple) to induce hyperpyrexia, (reply) [Solomon] 492
TYPHUS control measures; incidence, Europe; North Africa, 1152
endemic; rat control, [Joseph] 568—ab
in California, [Halverson] 1431—ab
under Hitler's rule, 137
U. S. of America Typhus Commission to study in war zones, 1044
virus, Brazilian, 63
TYROSINASE, pyrogenic reaction in hypertension, [Chasis] 237—ab
TYROTHRICIN treatment of streptococcic empyema, [Rammelkamp] 1251—ab

U

ULCER: See also Abscess; Colitis, ulcerative; Peptic Ulcer; Suppuration (cross reference); under organ affected as Penis
dicoumarin used with caution in, [Butsch & Stewart] ★1025
ULCUS necroticum oris: See Periadenitis
ULNA, fractures of forearm in children, [Blount & others] ★111; (Monteggia's) ★114
ULTRAVIOLET RAYS, air disinfection, 626—E
air disinfection to control epidemic influenza, [Stokes & Henle] ★16
blood irradiation, [Miley] 1063—ab
blood irradiation (Knott technic) in pyogenic infections, [Miley] 990—ab
Gosztonyi (model "D") Applicator, 372
Photosensitivity: See Light
therapeutic value, (Council report) ★620

UMBILICAL CORD, inject vein with saline solution (Majon-Gabastou method) [Shannon] 157—ab
UNCONSCIOUSNESS: See also Anesthesia; Sleep
from hypoglycemia, 872
UNDERGRADUATE Work: Students; etc.: See Education; Education, Medical; Schools, Medical; Students; Students, Medical; University
UNDERNOURISHED: See Nutrition
UNDERWEIGHT: See Body weight; Emaciation
UNDULANT FEVER: See Brucellosis
UNITED China Relief, 210
Hospital Fund: See Hospitals
Short Wave Diathermy, 1156—BI
UNITED STATES: See also American; Federal
Army: See Army; Medicine and the War
Census: See Census
Children's Bureau: See under Children
Citizens Defense Corps, 771
Citizens Service Corps, 771
Civil Service Commission, as sources of recruitments, 770
Congress, low mortality rate in, 1409
Congress, Medical Legislation in: See Laws and Legislation
Department of Justice Indictment: See American Medical Association
Department of Labor, standards for maternity care and employment of mothers, 55
employees examined for tuberculosis, 976
employees of Census Bureau, health service for, 384
government aid for maternity care for wives of service men; Barkley bill, 47—E
government aid (loans) for medical students pursuing accelerated courses, 132
government creates tuberculosis control section, 217
Laws and Legislation: See Laws and Legislation
Navy: See Medicine and the War; Navy
of America Typhus Commission to study typhus in war zones, 1044
Pharmacopeia: See Pharmacopeia
Public Health Service: See Health, U. S. Public Health Service
Senate Committee on Education and Labor: See Pepper hearings
Social Security Act: See Social Security
Supreme Court Decision: See Medical Jurisprudence
War with: See Medicine and the War; World War II
UNIVERSITY: See also Education, Medical; Schools, Medical; under names of specific universities as Columbia; Harvard; Ohio State; Stanford; Vanderbilt; etc.
Health Service: See Students
of California, (school of public health) 707; (course in mental hygiene for adults) 774
of Chicago, (Clinics, results in syphilotherapy) [Kahn & Becker] ★338; (discussion) 346; (De Lee Memorial Fund presented to) 1048
of Cincinnati, (course on military neuropsychiatry) 633
of Geneva, (appointments) 1153
of Georgia, (restored to probation list) 850—OS
of Illinois, (Illinois Eye and Ear Infirmary transferred to) 213; (Presbyterian Hospital reorganized) 461; (Hospital Unit to go on active duty) 542; (research fellowships available) 545; (blood and plasma bank) 1048; (study of marihuana) 1128—E
of Michigan, (physical hardening program) 382; (training course for plumbers and engineers) 970
of Minnesota, (financial gifts to) 974; (Citizens Aid Society establishes Christian professorship in cancer research) 1148
of Oxford, (Lord Nuffield endows institute of social medicine) 137; 218
of Texas, (organization changes) 1149; (grants to; war program) 1408
Students: See Students; Students, Medical
URANIUM excretion by glomeruli, [Zeisler] 786—C; (reply) [Simonds] 786—C
UREA "frost" on skin in uremia, 802
hydrochloride add to local anesthetic? 1079
UREMIA, sodium chloride or urea "frost" on skin in, 802
urinary obstruction in children causing renal hyperparathyroidism, [Harrison] 317—ab
URETERS, Calculi from Sulfonamides: See Urinary Tract
URETHRA, diverticula, after transurethral prostatic resection (first on record), [McGavran] ★1381
Gonorrhea: See Gonorrhea
rupture, treatment, 465
URIC ACID in blood, cyanide solutions for determining, 1169
URINARY SYSTEM: See also Bladder; Genitourinary System; Kidneys; Urethra; etc.
abdominal pain in children, [Campbell] 721—ab
calculi from sulfadiazine, [Rottino] 1253—ab
infection complicating rectum resection (colostomy), [Jones] ★105
infection with Bacterium flexneri in pregnancy, [Diddle] 988—ab
obstruction in children causing renal hyperparathyroidism, [Harrison] 317—ab
URINATION, frequent, refractory in young girl, 87; (reply: suggest psychotherapy), [Aring] 802
frequent, nocturia, testosterone relieves, [Greenblatt] 75—ab
URINE, Albumin in: See Albuminuria
alkaptonuria in ochronosis of sclera and cornea, [Smith] ★1282
Blood in: See Hematuria
calcium and phosphorus in thyrotoxicosis and myxedema, [Robertson] 242—ab
diastase in pancreatic disease, [Pratt] ★175; [Lampson] 1162—ab
Incontinence: See also Urination, frequent
incontinence and excessive somnolence (bedwetting) in adult man, 88
indicanuria, relation to hypertension? 411
minerals in, clinical value of determining, [Macy] ★34
"muddy," voiding a danger sign: sulfonamides therapy, [Arnett] 68—C
nicotine in, from cigaret smoking, [Perlman & others] ★1003
of Pregnant Women: See Gonadotropins, chorionic
pentosuria and diabetes, [Moss & Walker] ★25
Polyuria: See also Diabetes Insipidus
polyuria, pheochromocytoma with hypermetabolism, [McCullagh] 234—ab
pregnandiol in, Venning's gravimetric test, [Hamblen] 988—ab
Protein in: See Albuminuria
silver is excreted, [Blumberg & Carey] 227—C
Sugar: See Diabetes Mellitus; Glycosuria
sulfonamides in, simple test for, [Monto] 239—ab
suppression, anuria after sulfapyridine, [Schroeder] 162—ab; [Keitzer] 1342—ab
suppression, anuria complete after sulfadiazine, [Louria & Solomon] ★1354
vitamin C, methylene blue determination, [Castro Mendoza] 1257—ab
UROBILIN excretion in stools in normal infants, influence of dietary fat on, [Josephs] 793—ab
UROGASTRONE, chemical inhibitor of gastric secretion, [Thomas] ★737
UROGENITAL SYSTEM: See Genitourinary System; Urinary System
UROLOGY, American Urological Association award, competition open for, 1238
URTICARIA, Giant: See Edema, angioneurotic
UTENSILS: See Cooking and Eating Utensils
UTERUS: See also Placenta
cancer (cervical), interstitial radiation for, [Teahan & others] ★423
cancer (cervical), radium method vs. morbidity and mortality, [Wimhöfer] 486—ab
cancer (cervical), roentgen treatment, [Reinhard] 865—ab
cancer, radium therapy causes rectum and bladder lesions, [Chydenius] 1074—ab
Cervix: See also Uterus, cancer
cervix, intracervical soft rubber pessary as contraceptive, 412
cervix, nerve supply, 1080
contractions, corpus luteum extracts to inhibit, [Falls] 866—ab
excision, chronic chlorosis as hazard in [Abbott] 1064—ab
excision (subtotal), menstruation after, 492
Hemorrhage (functional): See Menstruation
inversion, conservative treatment, [McLennan & McKelvey] ★679
involution, bed rest (7 to 9 days) after childbirth, 631; 801
Mucosa: See Endometrium
myoma, experimental fibroids, antifibromatogenic steroid hormones, [Lipschütz] ★171
prolapse, ball pessaries, 871
UTRA JEL, 532—BI

V

VACATIONS: See Holidays
VACCINATION: See also Immunization; under names of specific diseases as Influenza; Smallpox; Tularemia; Typhoid; Yellow Fever; etc.
BCG: See Tuberculosis, immunization
compulsory, Iowa school board rejects, 299
National Serological Society chiropractic pamphlet against, 207—E
VACCINE: See also Influenza; Plague; Typhoid; Vaccination
intraperitoneal injection to prevent peritonitis, [Dixon] 1248—ab
Treatment: See Furunculosis
VAGINA Discharge: See Leukorrhea
spermatozoa viability in, [Joël] 1437—ab
VAGINITIS, Gonorrheal: See Gonorrhea resistant, in young girl, 88
VALENTINE, WALTER H., portrait, 1148
VALLEY Fever: See Coccidioidomycosis
VALSALVA, experiment of, dangerous anesthetic method, 801
method of inflating middle ear, [McBean] 642—C
VANDERBILT University Hospital Unit activated, 459
VAN'T HOFF'S laws of osmotic pressure, 685—ab
VAPONEFRIN not acceptable for N.N.R., 287
VAPORIZERS, racemic epinephrine for oral inhalation, (Council report), 287
VARELA, MANUEL ENRIQUE, appointment, 711
VARICOCELE, treatment (Ribeiro surgical technic), 1054
VARICOSE VEINS and thrombotic barrier, [Gault] 397—ab
diagnosis, new method, [López Esnaurrizar] 723—ab
Junoform two-way stretch elastic hosiery, 204
treatment, injection, empty vein technic prevents embolism, [Brunstein] 553—C
VARIOLA: See Smallpox
VASOCONSTRICTION, duodenal; effects of dysentery toxin, 1410—E
VEGETABLES: See also under names of specific vegetables
dehydrated, effect on vitamin content, [Kohman] ★837; 855
dried, for troops at the front, 635
effect of storage and cooking, [Kohman] ★832; ★834
green leafy, nutritive value, [Maynard] ★695
milk substitute, recipe for, using taro root, [Feingold] 480—ab
nutritive value, [Wilder & Keys] ★533
raw, in school meals, England, 385
root, nutritive value, [Maynard] ★694
VEINS: See also Blood Vessels
coronary, ligate in massive esophagus hemorrhage, [Grace] 1163—ab
femoral, valvular insufficiency, new diagnostic method, [López] 723—ab
Inflammation: See Phlebitis; Thrombophlebitis
Injection into: See Injections, intravenous
of arms, head down-feet up position to measure blood output in, [Henderson] 1414—C
phlebography applied to treating thrombosis and embolism, [Welch] 569—ab
Portal: See Portal Veins; Pylephlebitis
roentgen study, value in thrombophlebitis, [Fine] 1340—ab
Thrombosis of: See Thrombophlebitis; Thrombosis, venous
Varicose: See Varicose Veins
VENEREAL DISEASE: See also Gonorrhea; Lymphogranuloma, Venereal; Prostitution; Syphilis
Argentine laws on, 303
CCC camps to become hospitals for girls with, 62
clinic, psychiatric service in, San Francisco, 1236
clinic: Wesley Hospital, Chicago, 298; 1236
control in Peru, 549
control in World War II, civilian measures, [Aselmeyer] ★880
control program in industry; Advisory Committee report, [Anderson & others] ★828
control, wartime, applying recent discoveries, [Stokes] ★1093
employing persons with, [Anderson & others] ★830
problems in selectees, [Rowntree] ★1230
prophylactic stations, San Francisco, 774
quarantine hotel, Chicago, 1326
quarantine, statewide, Georgia, 1236
rate, total, U. S. Army, 294
refresher courses, N. Y., New York, 215
VENEREAL WART: See Condyloma acuminatum
VENOGRAM: See Veins, roentgen study
VENOM: See Bees, stings of
VENUS Tablets and V-76 Laxative Tablets, 785—BI
VERITOL: See Pholedrine
VERRUCA Acuminata: See Condyloma acuminatum
vulgaris, recurrent, treatment, 492
VERTEBRA: See Spine
VERTIGO: See also Syncope
hypertension and, [Weiss] ★1084
post-traumatic, [Lehmann] 1064—ab
VESICULITIS: See Seminal Vesiculitis
VESTIBULAR Mechanism: See Ear, middle
VETERANS, disability from digestive disease, [Kantor] ★259
disability from epidemic encephalitis, [Schnizer] 1438—ab
Hospitals: See Hospitals
VETERINARIANS, advocate national animal health service for England, 1152
commissioning of, 703
VETERINARY anthelmintics, warning, 217
Practice Acts: See Medicolegal Abstracts at end of letter M
VIBRATHERM, 785—BI
VICINE, 1156—BI
VICTORY Tax: See Tax
VINYL acetate under allocation control, 772
VIRCHOW, RUDOLF, Simonds on changing concepts in pathology, 375—E
VIRUS: See also Choriomeningitis; Encephalitis, Epidemic; Lymphogranuloma, Venereal; Myxomatosis; Pneumonia; Poliomyelitis; Rabies; Typhus; Yellow Fever; etc.
etiologic role in cancer, [Murphy] ★110
isolation of, in epidemic (shipyard) keratoconjunctivitis, 538—E

VISCERA: See Organs
VISHNEVSKI, ALEXANDER, heroic Russian doctor operates under fire, 294
VISION: See also Blindness; Eyes; Glasses; Ophthalmology
Color: See Color Blindness
conservation, committee, W. Va., 464
cortical representation of macula, [Putnam] 1062—ab
Dark Adaptation: See Eyes accommodation
defective and driver's license examination, [Selling] ★261
factor vs. vestibular mechanism in aerial equilibration "tailspins," [Carson] ★7; 1309—E
Loss of: See Blindness
Nearsightedness: See Myopia
VITA RAY, 641—BI
VITAL CAPACITY after acute coronary occlusion, [Master & others] ★1271
VITAL STATISTICS: See also Population; Medicolegal Abstracts at end of letter M
Death Rate: See also Accidents, fatal; Death, cause of; Maternity; under names of specific disease
death rate low in U. S. Congress, 1409
death rate lower since 1900, additional American fighters due to, 58—OS
death rate, suicides drop in war: Metropolitan report, 768—E; 777
death rate summaries, U. S., new series, 926—E
death rate, U. S. Army, 294
morbidity, Bolivia, 220
morbidity, lives saved for defense, Metropolitan statement, 380—OS
morbidity under Hitler's rule, 137; 217; 547; 848; 971; 1223; 1313
of Chile, 549; 711
of East Harlem district, New York, 1311—E
of England, 635; 710; 1151
Pan American Sanitary Conference (11th) resolution on, 778
VITAMINA and Vitaminascope, 67—BI
VITAMINS Deficiencies: See also under names of specific vitamins
deficiencies, throat and nose signs, 1152
effect on gastric secretion, [Thomas] ★737
fat soluble, [Butt] ★1030
in Army ration, [Howe] ★94; ★95
in child's diet, [Jeans] ★919
in commercial concentrates, [Elvehjem] ★1397
in Navy ration, [Brown] ★98
in preserved food, effects of usual preservatives, [Peragallo] 868—ab
in unusual foods, [Wilder & Keys] ★529
in various portions of wheat, 126—E
in wheat flours, [Maynard] ★693
multiple, for preventing colds, [Cowan & others] ★1268
preservation of, in food processing, [Kohman] ★831
sugar interferes with satisfactory supply of; enrich sugar? (Council report) 764
Sun-Ra Vitamin Ointment, 1334—BI
treatment of lead arsenate poisoning in fruit farmer, [Kilgore & Rhoads] ★1125
water soluble, [Elvehjem] ★1388
VITAMINS A: See also Carotene
A and D, Vita Ray, 641—BI
chemistry; physiology; sources; human requirement; toxicity, [Butt] ★1030
content of certain fruits, [Maynard] ★696
deficiency, lesions of, [Straumfjord] 401—ab
deficiency, methods for measuring, [Butt] ★1033
deficiency, relation to infection, liver and skin, [Butt] ★1032
in blood and dark adaptation, [Haig] 237—ab
recommended daily allowances, [Wilder & Keys] ★530; (in British diet) ★534
VITAMINS B COMPLEX, [Elvehjem] ★1388
bismuth hepatitis at San Quentin prison, [Kulchar & Reynolds] ★343
components in various foods, [Elvehjem] ★1389
Deficiency: See also Beriberi
deficiency and gastrointestinal tract, [Martin] 476—ab
deficiency, precancerous mouth lesions in, [Martin] 647—ab
deficiency role in dietary hepatic cirrhosis in alcoholism, 624—E; [György & Goldblatt] 1157—C
R, S, and U factors, [Elvehjem] ★1395
research award by Mead Johnson, nominations open, 547
treatment in otolaryngology, [Roberts] 73—ab
treatment of celiac disease, 1262
treatment of emesis and hyperemesis gravidarum, [Hart] 1230—ab
treatment of lead arsenate poisoning in fruit farmer, [Kilgore & Rhoads] ★1125
treatment plus liver extract of celiac disease, [May] 1066—ab
B1: See also Acid, nicotinic; Thiamine hydrochloride
B1 and endurance; "pep talks," [Karpovich] 78—ab
B1 deficiency, circulatory disorders due to, [Moniz de Bettencourt] 485—ab
B1 treatment of migraine, 324
VITAMINS B COMPLEX—Continued
B1 treatment of muscular dystrophy, [Hawke] 566—ab
B1 treatment of vomiting of pregnancy, [Willis] 564—ab
B2: See Riboflavin
B6: See Pyridoxine
VITAMINS C: See also Acid, ascorbic
cancer patients utilization, [Minor] 236—ab
carbohydrate metabolism-insulin shock relationship, [Haid] 653—ab
colds prevented with, [Cowan & others] ★1269
deficiency and dental conditions in mental patients, [Barahal] 233—ab
deficiency cause of dermatitis and acne, 1262
deficiency, detect from vitamin C level of blood plasma, [Rinehart] 1430—ab
determination, methylene blue method, [Castro Mendoza] 1257—ab
in green leafy vegetables and fruits, [Maynard] ★695
infections in childhood relation to, [Abt] 1161—ab
levels of medical students, [Francis] 242—ab
levels of school children in war time, England, [Harris] 242—ab
levels, saturation method to determine, [Harris] 242—ab
milk diet of infant supplemented by, [Jeans] ★917
raw vegetables in school meals, England, 385
requirements of children, [Roberts] 238—ab
storage and cooking effect on, [Kohman] ★832; ★834
VITAMINS D.: See also Cod Liver Oil; Rickets
chemistry, physiologic aspects, distribution, toxicity, [Butt] ★1034
"hypervitaminosis D," [Bacharach] 787—C
recommended daily allowances, [Wilder & Keys] ★530; [Butt] ★1034
supplements to milk diet of infant, [Jeans] ★917
therapeutic value of ultraviolet radiation, (Council report) ★620
treatment of hypoparathyroidism, 411
treatment plus gold for rheumatoid arthritis, 871
D2 concentrated in parathyroid tetany, 87
D2 massive doses in rickets, [Lowell] 1438—ab
VITAMINS E, ADM Wheat Germ Oil, 470—BI
chemistry, sources, requirements, toxicity, clinical use, [Butt] ★1035
effect on body weight, [Stähler] 486—ab; 487—ab
labor (premature) and, [Shute] 564—ab
progesterone activated by tocopherols, [Stähler] 486—ab; 487—ab
synthetic tocopherols, therapy, [Blakeslee] 650—ab
treatment in habitual abortion, 86
treatment of muscular dystrophy, [Hawke] 566—ab; [Pohl] 1162—ab
VITAMINS H: See Biotin
VITAMINS K: See also Menadione
assay of, [Butt] ★1037
chemistry, sources, requirement, toxicity, clinical use, [Butt] ★1036
control effect of dicoumarin, [Allen & others] ★1012; [Wright & Prandoni] ★1015
deficiency, determination, [Butt] ★1037
in hepatic diseases, [Bechgaard] 571—ab
ointment for newborn, [Vollmer] 1162—ab
Prothrombin Determination; Deficiency: See Blood coagulation; Blood prothrombin
treatment of nephrotic syndrome, 1262
when to administer in pregnancy, 1443
VITAMINS P (citrin), [Elvehjem] ★1396; 1401—E
VITREOUS, floating opacities in high myopia, 578
VOCABULARY: See Terminology
VOICE: See also Hoarseness; Speech
atypical changes in adolescent (falsetto), [Greene] ★1193 (aphonia) ★1196
VOLKMANN'S Dry Caries: See Osteoarthritis
VOMITING in Pregnancy: See Pregnancy
therapeutic, in chronic alcoholism, [Lemere & others] ★269; [Kroger] 714—C
treatment, vitamin B complex, [Hart] 1250—ab
V-76 Laxative Tablets, 785—BI
VULVA, kraurosis, diethylstilbestrol for, 801
VULVOVAGINITIS, Gonorrheal: See Gonorrhea

W

WAFT and Sebrone, 641—BI
WAGES, what constitutes, (Bureau report) 1143—OS
WALKER'S Indian Herbs and Walker's Health Tonic, 471—BI
WALKING: See Marching
WANGENSTEEN Aspirator: See Peptic Ulcer treatment
WAR: See also Medicine and the War; Military Medicine; Soldiers; Spanish Civil War; World War
benevolence fund for members in service, Cambria County, Pa., 546
Gas: See Gas warfare
WAR—Continued
Geneva Prisoners of War Convention; Geneva Red Cross movement, Japanese agreement, 293—E
housing, health problems, [Freedman] ★9
Medical Service: See Medicine and the War; World War II
medicine and surgery, course on, N. Y., 1407
Neurosis: See Neurosis
problems for medicine, [Lahey] ★1138
Production Board, critical antimalarial problem and its solution, 1043
Recreation Congress, 705
Service for 18 Year Olds: See Adolescence
stomach disorders in wars of history, [Goldstein] 261—ab
Surgery: See Surgery; World War II
Veterans: See Veterans
Wounded; Wounds: See World War II
WARBLE FLY, myiasis due to; use of procaine hydrochloride, [Harrell] 403—ab
WARD'S Posture-Aid Health Belts, 785—BI
WARNER'S Nostrums, 641—BI
WARTS: See Verruca
Venereal: See Condyloma acuminatum
WASSERMANN TEST Fast Syphilis: See Syphilis
research in Argentina, 303
WASTE Material Campaign, medical detachment collects 70 tons of scrap metal, 540
WATER: See also Drowning; Ice; Swimming
Arsenic Spring Water, 225—BI
cold, immersion foot, 1216—E
cold, in ears, causes new bone growth, [Fowler] 1340—ab
Extraction from Food: See Dehydration
Metabolism: See Dehydration
Mineral: See Health resorts; Mineral Water
ocean, chemical analysis, [Bradish & others] ★684 (footnote 7)
polluted, gastroenteritis outbreak from, N. Y., 135
Radioactive Cones, 552—BI
salt or fresh, physiology of drowning, 871
sea water enemas, 165, [Bradish & others] ★683
sea water, physiologic aspects; making it potable, [Bradish & others] ★683
sluicing streams as antimalarial measure, Malaya, 63
soap and water, use in traumatic wounds, [Kerrigan] 481—ab
Soluble Vitamins: See Vitamins
supply, fluoride in, vs. mottled enamel and dental caries, [Shils & McCollum] ★615; (Escanaba cooperative study) 1147
supply, lead pipe connection, danger from? Chicago code, 995
supply, public, protection; maintenance: OCD Bulletin, 970
temperature, for dishwashing and rinsing; disinfectant value of chlorine, (Dr. Bristol's subcommittee report) ★371; 376—E
temperature necessary to produce burn, 325
WATER-CURE, Lust's, 471—BI
WATKINS Laxative Cold Tablets, 552—BI
WEATHER: See Climate; Seasons
WEBER, F. P., statement at Pepper hearings, 922—E; 933
WEBER-Parkes Prize: See Prizes
WEIGHT: See Body; Fetus; Obesity
WEIL'S DISEASE: See Jaundice, spirochetal
WEIL-FELIX reaction in proteus and pseudomonas infection, [Dammin] 567—ab
WELDING fumes affect tuberculosis susceptibility, [Gardner] 1065—ab
WELFARE: See Children; Maternity; Social
WELLCOME, HENRY, estate of, gift for research on drying of plasma and serum, 218
WELLCOME Award: See Prizes
WERLHOF'S Disease: See Purpura, thrombopenic
WEST, OLIN, telegram on de Kruif's A.M.A. membership; also A.M.A. has no part in commissions or assignments, 963
WEST VIRGINIA State Medical Association (adopts resolution on contraceptive information), 136; (Past Presidents, 1867-1942) 136
WESTCHESTER County, cancer control, [Adie & Charlton] ★752
WESTERN Surgical Association cancels meeting, 709
WETZEL'S grid: See Grid
WHEAT: See also Flour
Germ, ADM Wheat Germ Oil, 470—BI
Germ of Wheat, 66—BI
protein contents of various parts of grain flour, 126—E
Selenium: See Selenium
whole, and white flour, proximate composition, also vitamin and mineral content, [Maynard] ★692; ★693
WHEY, powdered, dried, [Wilder & Keys] ★531
WHIPPLE'S Disease: See Lipodystrophy
WHITE, ARTHUR J., receives Navy Cross for heroic work on *Lexington*, 214
WHITE, THOMAS R., "Tokyo" flight surgeon awarded distinguished flying cross, 378
WHITE HOUSE Apple Juice, 597
WHITE LEG: See Phlegmasia alba dolens

WHITEHOUSE, Sir BECKWITH: rising generation in medicine, 754—ab; [Gimbel] 1336—C
state control of medical practice, England, 1410
WHOOPING COUGH, antigen structure of Hemophilus pertussis, [Flosdorf] 396—ab
antitoxin, [Weichsel] 396—ab
diagnosis, nasopharyngeal culture vs. cough plate method, [Brooks & others] ★883
diagnosis, tuberculin reaction positive, 387
immunity with toxin and antitoxin, [Bullowa & others] ★886
personality changes and behavior disorders of children after, [Lurie & Levy] ★890
polyneuritis due to, [Santa Maria] 1438—ab
treatment, sulfathiazole, 412
vaccination (concurrent), [Miller] 316—ab
WILDER-Cutler-Power Sodium Chloride Restriction Test: See Sodium chloride
WILLAT Method of Heatless Permanent Waving, 471—BI; 1156—BI
WILLIAMS, DANIEL H., Negro surgeon performed first cardiac suture, 348—ab
WINE with Prestone, death from drinking, 575
WINTHROP Chemical Co., Inc., 461
WIRELESS: See Radio
WOLFF, GUSTAV, death, 1153
WOMAN'S AUXILIARY, aids Medical and Surgical Relief Committee of America, 130
news of, 212, 380, 544, 850, 1047; 1405
WOMEN: See Girls (cross reference); Marriage; Maternity; Menopause; Menstruation; Pregnancy
Physicians: See Physicians, women
WOMEN'S Field Army: See American Society for Control of Cancer
Medical Association, Jacobi Fellowship, 1238
WONDER Dandruff Cure, 67—BI
WOOD, FRANK M., priority of work on artificial antibodies, [Wood] 309—C
WOOD Alcohol: See Methyl Alcohol
WOOL for Kenny treatment available, 975
sensitivity to, and blisters on feet, 86
WORDS AND PHRASES: See Terminology; Medicolegal Abstracts at end of letter M
WORK, HUBERT, death; portrait, 1332
WORK: See also Effort; Exercise; Industrial Health
amphetamine and pervitin a necessity for German motorized troops, 1314
oscillometry during, in neurocirculatory asthenia, [Christensen] 798—ab
WORKMEN'S COMPENSATION: See also Industrial Accidents; Medicolegal Abstracts at end of letter M
Council on Industrial Health committee report, 43
Industrial Accident Commission of Maryland first report, Medical Board 626—E
WORLD Famous New Life Laxative Tonic, 67—BI
WORLD'S Tonic Compound with Alkalines, 67—BI
WORLD WAR I (1914-1918), orthopedic surgery, [Dickson] ★413
Finney's (?) statement in 1917 on function of surgeon, 1312—E
Thomas splint in, 805—ab
wounds, danger in use of tourniquet in arrest of hemorrhage, 894—ab
WORLD WAR II (1939 ——): See also Medicine and the War; War
air ambulance service of Royal Air Force, Cairo, 1132
air force, miniature mass roentgenography in Royal Air Force, [Trail] 158—ab
air raids, how Britain has stood, 856
air raids, increased underground shelters against, 1151
air raids, lessons from British experience in civil defense with [Baehr] ★1045
American doctors on active service in New Zealand, 1403
American medical men honored for services to China, 849
American troops, good health of in Britain, 855
Australian Central Medical Coordination Committee and Australian Red Cross, 1314
Britain's war effort, 1240
British Army medical service in Middle East, 977
British soldiers, bronchiectasis without disability, [Martin] 1436—ab
casualties, 131
casualties, accidents compared to, 1150
casualties, anesthesia in England at American Hospital, [McCarthy] ★599
casualties at Pearl Harbor: *Hawaii Medical Journal* account, 1217—E
casualties (battle), tetanus antitoxin for, 856
casualties, blast injuries, 1398—E
casualties, crush or compression syndrome, [Duncan] 398—ab; 1052; [Patey] 1070—ab
casualties, India, 1240
Canadian Army, tuberculosis in, [Warner] 1063—ab; [Andrus] 1432—ab
children, evacuation from London, relation to epidemiology, 767—E
children, French, present state of, 386
disease, wider clinical study of urged by Ryle in the Gilchrist Lecture, 1151
emergency medical station units shipped to Caribbean by American Red Cross, 378
famine in Europe, 548
Food Supply: See subhead: Nutrition
German camps, dysentery in, [Dötzer] 797—ab; 1346—ab
German motorized troops, increase performance with amphetamine, 1314
German phosphorus bomb, 636
Germany, public health under Hitler's rule, 137; 547; 848; 971; 1223; 1313; 1403
health of nation notwithstanding the war, England, 635
heat stroke none in desert tank crews, Libya and Egypt, 780
heroes, Arthur J. White receives Navy Cross for heroic work on Lexington, 214
heroes, Dr. Charles A. Baumhauer cited for gallantry, 1132
heroes, Dr. Philip Baxter helps to save a hospital, 635
heroes, fighting in New Guinea, Australian medical officer account, 1239
heroes, Lieutenant Kearney, 1402
heroes, live shell removed from man's thigh, England, 1239
heroes, medical officers awarded Purple Heart for service in Burma, 627
heroes, memorial services for Major McCloskey killed in action, 776
heroes, Thomas R. White, "Tokyo" flight surgeon, 378
heroes, U. S. Naval Hospital at Pearl Harbor cited for service, 1402
heroic Russian Army doctors operate under fire, 294
heroism, surgeon's, in sinking of aircraft carrier, 636
hospitals, blankets for Russian hospitals purchased by Russian War Relief, Inc., 849
hospitals, Guy's staff depleted, England, 385
hospitals, "hutted," England's, 849
hospitals in Tobruk under seige, 779
hospitals, U.S. Army takes over Red Cross-Harvard Hospital in England, 377; 710
immersion foot, 1216—E
industrial accidents and, England, 1330
Japanese and agreement of Geneva Prisoners of War Convention, 293—E
Lapicque (Louis) arrested; *Presse medicale* suppressed, 1409
medical officer (reserve) in Navy Medical Corps, [McIntire] 1136—ab
medical planning committee of British Medical Association, 139; 217; 460—OS; 1312—OS; 1410
medical profession and national leadership, [Swaim] 982—C
medical schools affected by, England, 1410
medical students, British, about to join medical corps, 465
neurosis in Australian forces, in Tobruk, [Cooper] 1165—ab
neurosis in England, [Lewis] 1071—ab
nurses, club for Americans in London, 1052
nurses, "flying nurse," Women's Auxiliary Air Force, 636
nutrition, American appreciation of Ministries of Food and Health, 636
nutrition, anemia in hospital nurses on wartime diet, 1052
nutrition, anemia in women and children on wartime diets, [Mackay] 652—ab
nutrition, British figure improved by rationing, 549
Nutrition Council, postwar relief of devastated countries, 855
nutrition, dried vegetables for troops at the front, 635
nutrition, food in powder and in blocks, England, 855
nutrition, food rationing for diabetics, England, 1240
nutrition, rations, how British Army is fed, 548
nutrition, raw vegetables in school meals, England, 385
nutrition, vitamin C levels of children and students, England, [Harris] 242—ab
oscillometry test in neurocirculatory asthenia as test for service, [Christensen] 798—ab
physicians, call-up of, England, 710
physicians' fees in Greece paid in kind, 711
physicians supply in Germany and England [Parran] ★1226
physicians supply (shortage) in Germany, 848; 855; 971
prisoners, British, new camp for war blinded in Germany, 302
prisoners, physicians in Germany, 1223
rehabilitation after injuries of central nervous system, 63
relapsing fever in Tobruk fortress area, [Cooper] 484—ab
respirator dermatitis in Royal naval depot members, 127—E; [Petro] 157—ab
Royal College of Surgeons museum destroyed, 1330
Russian: See also under other subheads
Russian physicians request reprints, [Razran] 226—C
Russian War Relief, Inc., (purchase blankets) 849; (report) 1314
science be affected by? 810—ab
sluicing streams as emergency antimalarial measure in use in Malaya, 63
smallpox epidemic in France, 386
stomach diseases in military service, [Haemmerli] 1072—ab; [Demole] 1073—ab; [Kapp] 1073—ab
stomach ulcer in armed forces, [Friedell & others] ★666
students, Chinese, for Britain, 780
surgery, anesthesia, pentothal intravenous, [Fulton, Hingson] 810—ab
surgery in Russia, Burdenko and his school, [Lepukaln] ★1131
surgery, ophthalmic, in Russian Army, [Filatov] ★54
Swiss second medical mission to eastern front, 1153
tuberculosis in servicemen, England, [Crawford] 796—ab
typhus, measures taken against and incidence in Europe and Africa, 1152
typhus, U. S. of America Typhus Commission to study typhus in war zones, 1044
United China Relief, 210
venereal disease, civilian measures for control, [Aselmeyer] ★880
women demand equal compensation for injuries, England, 779
women: maternity and the war, England, 465
women war work and pregnancy, England, 779
wounded, training the limbless, England, 1239
wounds, lessons from British experience in, [Baehr] ★1045
wounds, treatment, role of surgeon, 1312—E
WORMS, Screw: See Myiasis
WOUNDED: See World War
Transport of: See Ambulances
WOUNDS: See also Trauma; under specific organs and regions
gunshot, live cannon shell removed from a man's thigh, England, 1239
gunshot, of liver, [Countryman] 1341—ab
gunshot, of pulmonary vessels and speed of death, 1080
infected and traumatic, sulfonamides in, [Baker] 315—ab
infected, sulfathiazole locally, [Green] 1165—ab
phagocytosis by leukocytes, [Reed] 405—ab
stab, of left breast, ligate coronary artery after, [Bradbury] 1425—ab
Suturing: See Suture
traumatic, exclusive use of soap and water, [Kerrigan] 481—ab
treatment, cod liver oil, [Hardin] 1434—ab
treatment, fibroblasts growth in serum containing sulfathiazole, [Reed] 405—ab
treatment, sulfonamides; eusol, etc. and procaine anesthetics must not be used with, [Matthews] 1256—ab
treatment, tetanus from unsterile sulfonamide dusting powders, [Welch & others] ★361
treatment, zephiran chloride, N. N. R., (description) 289; (Alba) 289
War: See World War
WRIST fracture in children, [Blount & others] ★114
WRITERS: See Science writers
WRITING: See Articles; Journals; Terminology
WYETH, Inc., establish, Gorgas Medal, 1329

X

X-RAYS: See Roentgen Rays

Y

YALE University, (Hospital Unit mobilized) 131; (course in industrial medicine for physicians) 298; (John E. Lane Collection of Prints) 461; (Dr. Flint presents original treatises) 461
YEAST,. brewers', mixed with peanut butter; food value, [Wilder & Keys] ★532
Infection: See Torula
YEE, HENRY, Herb Co., 1334—BI
YELLOW FEVER, chiropractic theory of patriotism: antivaccinationist pamphlet, 207—E
control and mosquitoes, South America, [Sawyer] ★1189
in Brazil, 140
in western Uganda from Aedes simpsoni mosquitoes, [Mahaffy] 796—ab
prevention, chemotherapy, [Martini] 243—ab
vaccination, jaundice after, Brazil, [Fox] 987—ab
vaccination, jaundice outbreak in U. S. Army, 46—E; 51
vaccination with virus 17D, encephalitis after, [Fox] 1426—ab
YODICE Sign: See Abdomen, acute
YOLK Sac: See under Eggs; Lymphogranuloma, Venereal
YOUNG'S (Dr.) Rectal Dilators, 552—BI
Preparation, 552—BI
YOUTH: See Adolescence; National Youth Administration

Z

ZENAIDA, 641—BI
ZEPHIRAN chloride, N. N. R. (description) 289; (Alba) 289
ZINC, importance in nutrition, [Shils & McCollum] ★614
peroxide treatment in gas gangrene, [Caldwell] 865—ab
ZOOLOGY, Columbia advisory committee, 852
ZOOPLANKTON: See Plankton
ZYGOMA: See Malar Bone

AUTHOR INDEX

In this Index are the names of the authors of articles which have appeared in THE JOURNAL, the names of those who have read papers before Societies as published in THE JOURNAL and those whose articles have been abstracted in the Current Medical Literature Department. The * preceding the page reference indicates that the article appeared in full in THE JOURNAL.

For subject index see page 1447.

A

Abarbanel, A. R., 153
Abbott, W. E., 398
Abbott, W. F., 1064
Abels, J. C., 74
Abler, C., 1162
Abt, A. F., 1161
Ackman, D., 235
Adair, F. L., 1341
Adamson, J. D., 74, 1064
Adie, G. C., *752
Aegerter, E. E., 649
Aguilar, J. R. S., 1426
Aguilar Giraldes, D., 485
Aguilar Meza, R., 320
Aibel, M. E., 1252
Albanese, A. R., 1257
Albright, F., 155
Alexander, C. S., 651
Alexander, H. E., 76
Alexander, L. J., 153
Allen, A. W., *493
Allen, E. V., *1009
Allen, H. E., *811
Allen, H. N., 566
Allen, J. H., *190
Almond, S., 1256
Alpers, N., 650
Alterman, J., *886
Altman, H. S., 1162
Alvarez, W. C., *21
Alyea, E. P., *1099
Amatruda, C. S., 720
Anderson, G. E., 1163
Anderson, J. A., 1066
Anderson, O. L., *828; (correction) 1051
Anderson, R., 405
Andrew, R., 484
Andrews, H. L., *525
Andrus, P. M., 1432
Apgar, V., 1247
Appel, B., 78
Arieff, A. J., 156
Aring, C. D., *1376
Arnett, J. H., 68
Aronson, J. D., 234
Aselmeyer, A. J., *880
Asher, R., 718
Asherson, N., 1436
Ashworth, C. T., 404, 404
Atalaya, R., 992
Au, M. H., 399
Aubert, E. F., 158
Austin, V. T., *911
Avent, C. H., 481
Axelrod, S. J., 152
Ayman, D., 147

B

Bacharach, A. L., 787
Baehr, G., *1045
Baer, S., 1061
Baethke, D., 1162
Baila, A. E., 1438
Baker, A. B., *1268
Baker, G. E., 648
Baker, L. D., 315
Balkin, R. B., 234
Banet, V., 159
Banowitch, M. M., 153
Bansi, H. W., 653
Baptist, M., 237, 988
Barach, A. L., 792
Barahal, H. S., 233
Barefoot, S. W., 477
Bargen, J. A., 1248
Barker, C., *1230
Barker, N. W., 481, *1009
Barnes, A. R., 312
Barnes, R. W., 1063
Baron, B., 479
Barreras, L., 243
Barringer, B. S., *909
Barron, A. A., 401
Barrows, E., *826
Bartelheimer, H., 653
Bases, L., 398
Basunti, V., 992
Batchelor, R. C. L., 1436
Bauer, G., 1166
Bausch, W., 1258
Bazán, F., 571
Beattie, J., 1435
Bechgaard, P., 571
Beck, C. S., 397
Becker, F., 723
Becker, S. W., *338
Beerman, H., *333
Benensohn, S. J., 866
Bergo, H. L., *1207
Berisso, H. M., 485
Berk, J. E., 987
Berke, R., 791
Berman, L. S., *827
Berridge, F. R., 406, 1436
Berry, F. B., 1339
Berry, G. P., *883
Besedovsky, Y., 1438
Bickel, G., 992
Billings, F. T., Jr., 567
Bingham, K., 652
Birnbaum, G. L., 318, 569
Bishop, H. F., *807
Blackfan, K. D., 1066
Blackford, J. M., *811
Blades, B., 1344
Blake, F. G., 405
Blakeslee, G. A., 650
Blalock, A., 398
Block, L. H., 480
Blount, W. P., *111
Blumberg, H., 227
Blumberg, N., *607
Boissard, J. M., 158
Bolen, H. L., 1252
Bollman, J. L., *1021
Bomskov, C., 1258, 1258, 1258
Bonn, H. K., 1429
Boorman, K. E., 158
Borowsky, S., 316
Bourne, W., *997
Bowman, M., 73
Boyce, F. F., 240
Boyd, J. D., 1339
Boyd, J. L., 566
Bradbury, S., 1425
Bradford, W. L., *883
Bradish, R. F., *683
Brav, A., 68
Brav, E. A., 477
Brick, M., 1161
Bromer, R. S., *251
Brooks, A. M., *883
Brown, A. F., 1063
Brown, E. W., *96
Brown, L. A., 1248
Brown, W. B., 400
Brown, W. E., 647
Browning, W. H., 1343
Broz, W. R., *269
Bruck, S., 477
Brunner, M., 479
Brunstein, I. A., 553
Bucher, R., 797
Bukantz, S. C., 68
Bullowa, J. G. M., 231, *803, *886
Bunney, W. E., 313
Burgess, A. M., Jr., 78
Burnet, F. M., 652
Burnett, C. H., 155
Burns, E. L., 317
Burr, H. S., 564
Burrett, J. B., 237
Busch, E., 160
Butsch, W. L., *1025, 1249
Butt, H. R., *1030

C

Cabrera Calderín, J. G., 243
Caffey, J., 151
Calame, A., 243
Calcaramí, J. R., 485
Calder, R. M., 309
Caldwell, G. A., 865
Caldwell, G. T., 1434
Caldwell, H. W., 1062
Calvo Melendro, J., 1074
Camiel, M. R., 1428
Campbell, H. S., 793
Campbell, J. A., 1342
Campbell, M. F., 721
Cançado, J. R., 477
Cannady, E. W., 566
Canzani, R., 83
Carbonell Salazar, A., 83
Carey, T. N., 227
Carmody, J. T. B., 989
Carnes, W. H., 316
Carranza, F., 1073
Carson, L. D., *4
Carter, R. A., 80
Casey, A. E., *805, 1343
Castex, M. R., 1437
del Castillo, H., 723
Castro Mendoza, H., 1257
Chaffee, J. S., 155
Chamberlin, D. T., 476
Chaná C., P., 723
Charet, R., 153
Charlton, H. R., *752
Charosky, L., 243
Chasis, H., 237
Cheavens, T. H., *968
Chesner, C., 232
Chown, B., *116
Christensen, B. C., 161, 798
Christy, C. J., 1342
Church, R. E., *816
Churchill, E. D., *1385
Chydenius, J. J., 1074
Cibils Aguirre, R., 485
Ciocco, A., 1069
Clarke, J. R., Jr., 1164
Clarke, W., *828; (correction) 1051
Clavel, F., 1257
Clegg, J. W., 1435
Climie, H., 1345
Cluver, E. H., 1161
Coburn, A. F., 720
Cochems, K. D., 1247
Cohen, B., 1068
Cohen, D., 478
Cohn, C., 1430
Cohn, M. L., *427
Cole, H. N., 226, 478
Cole, S. L., *196
Colebrook, L., 652
Collard, H. B., 1435
Coller, F. A., 1070
Colwell, A. R., 73, 1431
Compton, A., 319
Conger, K. B., 794
Connor, C. A. R., 646
Cooper, E. L., 484, 1165
Cooper, R. R., 77
Cope, O., 863
Cornell, A., *743, 1426
Corper, H. J., *427
Correa, O., 797
Corsellas, M. F., 1438
Coughlin, W. T., 793
Countryman, C. W., 1341
Cournand, A., 1339
Courville, C. B., 154, 1431
Cowan, D. W., *1268
Cowen, D., 151
Cox, F. J., 865
Crabtree, P., 1070
Craddock, S., 82
Craige, B., Jr., 405
Crawford, J. H., 796
Crawford, J. W., 988
Creevy, C. D., *1102
Creger, J. D., *1367
Crockett, K. A., 982
Cummings, R. H., *1109
Cunha, F., 1429
Cunningham, B. P., 72
Cunningham, J., 720
Curtis, L. E., 236
Cuyler, W. K., 237, 988

D

Dack, S., *1271
Dammin, G. J., 567
Dandy, W. E., *605; 792, 1249
Daniel, W. A., Jr., 396
Danna, J. A., 795
Dannenberg, A. M., *1003
Dannreuther, W. T., *169
Dattner, B., 1247
Davidoff, E., 239
Davidsohn, I., *1288
Davidson, L. S. P., 570
Davis, C. D., 237
Davis, J. E., 718
Davis, L. J., 570
Davis, M. M., 963
Davis, N., 1064
Davis, N. S., III., 68
Day, E., 152
Dean, J., 472
de Carvajal-Forero, J., 476
de Kruif, P., 940
DeLien, H., 1339
De Sanctis, A. G., *1087
de Takats, G., *686
Demole, M., 1073
Dennie, C. C., *197
Deutsch, J. V., *184
Devas, M. B., 1071
Diamond, S., 565
Díaz Mindurry, E. F., 1257
Dick, G. F., *24
Dicker, S., 992
Dickson, J. A., *413
Diddle, A. W., 988
Dieckmann, W. J., *590
Diehl, H. S., *1268
Dilworth, M. J., *583
Dixon, C. F., 1248
Doan, C. A., 153
Dobbs, R. H., 652
Dock, W., 147
Dodd, B. E., 158
Döhnert, H. R., 797
Doehring, P. C., 1249
Dötzer, 797, 1346
Domanski, B., 232
Donaldson, W. F., *1231
Donnell, J. P., 483
Donnelly, J. C., *675
Donovan, C. R., 73
Dormer, B. A., 565
Dornelles, J. J., *1190
Dorrance, S. S., 152
Doud, E. A., *1212
Dowdeswell, R. M., 241
Dowdy, A. H., 154
Downing, J. G., 1433
Drake, R. L., 1066
Dreessen, W. C., *828; (correction) 1051
Dreisbach, A. R., *1192
Dreskin, O. H., 1068
Dressler, M., 407
Driscoll, R. E., 75
Driver, J. R., 478
Dubo, S., 74
Dulaney, A. D., 399
Duncan, G. W., 398
Dunning, H. S., 792
Durant, T. M., 568
Dyke, C. G., 151

E

Earle, D. P., Jr., 237
Eastman, N. J., *729
Echternacht, A. P., 481
Eck, D. B., 1428
Edberg, E., 1166
Eggers, P., 992
Eggleton, M. G., 1071
Eisele, H. E., *188
Elek, S. R., *434
Elford, W. J., 319
Elkeles, G., 1162
Elliot, S. D., 652
Elliott, H. C., 226
Ellis, C., 76
Ellis, L. B., 78
Elman, R., *1176
Elmes, P. C., 722
Elsberg, C. A., 314
Elvehjem, C. A., *1388
Elvidge, A. R., 792, 1064
Emerson, E. B., Jr., 154
Engel, F. L., 1430
Engel, W. J., 234
Engelsher, D. L., 1157
England, N. J., 313
Enke, W., 1438
Ensworth, H. K., 477
Erikson, S., 161
Escamilla, R. F., 236
Esser, M., 83
Eusterman, G. B., 1249
Evans, N., 1063, 1429
Everhart, M. W., *683

F

Fagin, I. D., 650
Falls, F. H., 866
Farber, S., 315
Farmer, C. J., 1161
Farmer, L., 648
Faxon, H. H., 569
Faxon, N. W., *1385
Feingold, B. F., 480
Feldman, M., *738
Feldman, S., 153
Feldt, R. H., 231
Fels, S. S., *740
Fenn, G. K., *686
Ferdeber, M., *690
Field, H., Jr., 650
Filatov, V., *54
Fine, J., 1340
Finland, M., 719, *1294
Finley, K. H., 78
Fischer, J. T., 83
Fishbein, M., 948, *1186
Flanagan, N. B., *1383
Florey, H. W., 482
Flosdorf, E. W., 396
Floyd, H. S., 240
Follis, R. H., Jr., 316
Fonso Gandolfo, C., 243
Forster, G. F., 1247
Foshay, L., 1339
Fowler, E. P., Jr., 1340
Fowweather, F. S., 483
Fox, H., 787
Fox, J. P., 987, 1426
Fracassi, T., 486
del Frade, A., 653
Francis, G. E. C., 242
Frank, H. A., 1340
Frank, L., 1067
Frankel, C. J., *1384
Franklin, E. L., 482
Franklin, L. B., *117
Frazer, W. F., 483
Freedman, D. K., *9
Freudenberg, E., 83
Freund, H., 396
Friedell, M. T., *666
Friedlander, J., 565
Friedman, B., 316
Frisbee, F. C., 72
Frostberg, N., 1074
Fruchter, J. M., 477
Fry, R. M., 158
Funsten, R. V., *1384

G

Gaarde, F. W., *431
Gahan, E., 478
Galloway, I., *192; (correction) 384
García Romeu, D., 159
Gardner, G. H., 1057
Gardner, L. U., 1065
Gasche, P., 485
Gault, J. T., 397
Gelfman, R., 1061
Gershon-Cohen, J., *740
Getzoff, P. L., 317
Ghormley, R. K., *1171
Gibel, H., 1066
Gibson, L. E., 401
Gill, A. M., 406
Gillespie, M. G., 479
Gillett, J. D., 796
Gimbel, N. S., 1336
Ginzler, A. M., 232
Gish, E. R., 793
Glaser, M. A., 990
Glaubach, N., *280
Glen, M., 242
Glicklich, E. A., 239
Globus, J. H., *348
Gold, Harry, *44
Gold, Herman, 1164
Goldblatt, H., 1157
Goldburgh, H. L., 1061, 1430
Goldman, J., 241
Goldner, M. G., 1341
Goldring, W., 237
Goltz, H. L., 865
González A., E., 320
Gonzalez Videla, J., 1257
Goodman, H. I., *281
Goodman, M. H., 478
Goodrich, B. E., 239
Goodstone, G. L., 239
Gordon, R. M., 241
Gordon, W. H., 1163
Gottlieb, J. S., 1427
Gougelman, W. A., *1087
Gould, W. L., 1057
Grace, E. J., 1163
Graham, E. A., 1344
Grande Covián, F., 1257
Grant, D. N. B., *1317
Graybiel, A., 237

Greco, J. B., 477
Greear, J. N., Jr., 1063
Green. H., 79
Green, H. N., 1165
Green, M. N., 1247
Green, W. T., 315
Greenberg, L. D., 1430
Greenblatt, R. B., 75
Greene, J. S., *1193
Grinnell, R. S., 397
Gruenwald, P., 1253
Guller, E. J., *280
Gumbiner, B., *1373
Gutman, A. B., *1112
Guttmacher, A. F., *442
György, P., 1157

H

Hac, L. R., 1341
Hadley, H. G., 568
Haemmerli, A., 1072
Hahn, R. D., 151
Haid, H., 653
Haig, C., 237
Halberg, V., 162
Halpern, S. R., 720
Halverson, W. L., 1431
Hamblen, E. C., 237, 988
Hamilton, H. A., 1071
Hamm, F. C., 795
Hammond, E. L., *968
Hamre, C. J., 399
Hanes, F. M., 1061
Hanna, C. M., 1164
Hardin, P. C., 1434
Hardy, L. M., 1161
Harkins, H. N., 1344
Harkness, G. F., *327
Harmon, P. H., 1163
Harrell, G. T., 721
Harrell, W. B., 403
Harrington, S. W., *895
Harris, A. M., 718
Harris, J. H., 478
Harris, L. J., 242, 242
Harrison, F. G., 317
Harrison, T. R., *519
Hart, B. F., 1250
Hart, J. F., *192; (correction) 384
Hart, V. L., *900
Hartwell, A. S., 237
Harvey, A. M., 1251
Harvey, S. C., 81
Hauser, H., 402
Havens, W. P., 1163, 1431
Hawke, W. A., 566
Haxthausen, H., 162
Hayhurst, E. R., *828; (correction) 1051
Head, J. J., *968
Headlee, W. H., 791
Heath, C. W., *366
Heatly, C. A., 154
Heine, W. I., *607
Hellebrandt, F. A., 787
Hellerström, S., 798
Hellwig, C. A., 312
Hemplemann, L. H., Jr., 234
Henderson, A. F., *1099
Henderson, B., 565
Henderson, Y., 1414
Hengstmann, H., 1258
Henle, W., *16
Henry, A. K., 1256
Henschen, C., 1437
Herbst, W. P., *1116
Herbut, P. A., 1163
Herger, C. C., 74
Herlitz, C. W., 321
Herman, J. R., *283
Herman, M., *417
Hermann, H. B., *827
Herwick, R. P., *361
Hesselbrock, W. H., 1339
Hewitt, H. P., 1164
Heyn, W., 797
Hibbard, J. S., 1066
Hill, J. M., 404, 404
Hillman, C. C., *1140
Hines, H. M., *515
Hinton, J. W., *816
Hirschboeck, F. J., 479
Hoagland, R. J., *1211
Hoffman, A. M., *445
Hoffman, B. J., *1028
Hoffman, G. L., Jr., 476
Hoffman, S. J., *1373
Hoffmann, R., 1166
Hogan, M. J., 988
Hogg, F. J., 236
Holden, W. D., 398
Holder, E. C., 231
Holder, H. G., *448
Hollander, F., *743, 1426
Holm, O. F., 161
Holmblad, E. C., *828; (correction) 1051
Holt, L. E., Jr., 793
Holzmann, M., 1073
Hone, F. R., 484
Horn, H., 719
Horsfall, F. L., Jr., *284
Houghton, J. D., 1342
Howard, R. N., 991
Howe, P. E., *93
Howes, W. E., 1428
Howkins, J., 570
Huët, G. J., 321
Huggan, J. L., 1436
Hughes, G. K., 651
Huhner, M., 787
Hurtado, A., *1278
Husfeldt, E., 1166
Hussey, H. H., 400
Hutner, C. I., *754
Hyman, H. T., 792

I

Ilfeld, F. W., *448
Innes, J., 570
Irwin, C. E., *277
Isenhour, R., 481
Israel, H. L., 1339
Israel, S. L., 232
Izzo, J. L., 73

J

Jackson, C. L., 565
Jackson, D., 316
Jacobs, H. R., 796
Jacobson, S. S., 72
Jaffe, H. L., *1271
Jaffin, A. E., 313
Jahsman, W. E., *1126
Jeans, P. C., *913
Jeffers, W. A., 476
Jefferson, A. A., 722
Jelínek, M., 798
Jenkinson, E. L., *686
Jennings, M. A., 482
Jensen, N. K., 318
Jensen, S. H., 1074
Jentzer, A., 243
Jesberg, S., *1000
Jex-Blake, A. J., 483, 1256
Jiménez-Díaz, C., 1257
Jiménez García, F., 1257
Joel, C. A., 1437
Johnson, G. H., 1061
Johnson, J. H., *111
Jokl, E., 1161
Jolliffe, N., 75
Jonáš, V., 798
Jones, A. T., 1256
Jones, E. M., 1429
Jones, R. A., 406
Jones, T. E., *104
Joseph, C., 568
Josephs, H. W., 793
Joslin, E. P., 860
Jost, E. L., 237
Judd, E. S., Jr., 1344
Juster, I. R., 153

K

Kahle, P. J., 317
Kahn, D., *338
Kaiser, H. J., 944
Kaiser, W., 486
Kajdi, C., 793
Kalkstein, M., 477
Kantor, J. L., *254
Kapp, H., 1073
Karnaky, K. J., 866
Karpovich, P. V., 78
Kasman, L. P., 398
Kasselberg, L. A., *117
Katona, N., 396, *886
Katz, L. N., *434, 718
Katz, S., 400
Kaufmann, W., 989
Kearns, W. M., 240
Keith, J. D., 1161
Keitzer, W. A., 1342
Kemp, F. H., 796
Kemp, J. E., 1247
Kendell, H. W., 1063, 1341
Kendrick, D. B., Jr., 404
Kenny, E., 1335
Keogh, E. V., 484
Kernwein, G., 1163
Kerrigan, R. L., 481
Keyes, J. W., 239
Keys, T. E., *529
Keyser, L. D., 1255
Kiefer, E. D., *819
Kilgore, H. H., *1125
Killian, H., 487
Killian, S. T., 718
King, E. J., 1435
Kinsey, R. E., *1351
Kirk, N. T., *13
Kirklin, B. R., *733
Kirshbaum, J. D., 234
Kirsner, J. B., 231
Kitching, E. H., 483
Klein, D. L., 566
Klemperer, P., 719
Klendshoj, N. C., 314
Klepser, R. G., 76
Kline, P. R., 478
Knutsson, F., 161
Kohl, E. F., 69
Kohman, E. F., *831
Kolb, E. M., 1427
Koop, C. E., 647
Kopelman, H., 1165
Koransky, D. S., *1373
Kossjakow, P. N., 160
Kossmann, C. E., 646
Koster, H., 398
Kramann, H., 160
Kramer, D. W., 1254
Kramer, S., *590
Krarup, N. B., 320
Krauel, G., 653
Krebs, J. M., 233
Kreutzmann, H. A. R., 795
Krill, C. E., 156
Kroger, W. S., 714
Krüpe, M., 160
Kruger, A. L., 313
Kubie, L. S., 714
Kuhns, J. G., *329
Kulchar, G. V., *343
Kurtin, A., 398

L

Labourdette Scull, J. M., 243
Lahey, F. H., 927, *1138, *1356
Laidlaw, S., 722
Lam, C. R., 1344
Lampson, R. S., 1162
Landau, E., 1165
Landesman, R., 866
Langman, L., 564
Lanigan, J. P., 722
Lapham, M. E., 927
Larkin, V. de P., *1087
La Rotonda, O., 1253
Latham, A., 1435
Latner, A. L., 1436
Lavin, R., 653
Leete, H. M., 867
LeGrand, R. H., 155
Lehmann, P. O., 1064
Leibovitz, A., 184
Leider, A. G., 399
Leidy, G., 76
Leinoff, H. D., 314, 646, 787
Leitner, St. J., 159
Lemere, F., *269
Lennette, E. H., 1426
Lennox, W. G., *449
Lepukaln, A., *1131
Lercher, L., 79
Levin, I. M., *1373
Levine, M., *275
Levine, S. A., 1061
Levinson, S. O., *27
Levy, J. G., 231
Levy, N. A., 314
Levy, S., *890
Lewis, A., 1071
Lewis, H. B., *198
Lichtenstein, M. R., 313
Lieber, M. M., 1061
Lieberman, A. T., *1209
Liebig, H., 992
Liebman, S., 1062
Liebmann, J., 477
Lilienthal, J. L., Jr., 1251
Lima, A. O., 477
Lindahl, C., 162
Lindelöf, S. A. J., 162, 487
Lippelt, H., 1346
Lipschütz, A., *171
Lipshutz, J., *607
Lisa, J. R., *192; (correction) 384
Lisser, H., 236
Litvak, A. M., 1066
Liu, F., 396
Livingood, C. S., *333
Lockie, L. M., 646
Loeb, E. N., 237
Logan, R. F. L., 1256
Logue, V., 1165
Loman, J., 477
Lomholt, E., 571
Long, W. E., 1062
López Esnaurrizar, M., 723
Lorentz de Haas, A. M., 244
Louria, A. L., *1354
Loutit, J. F., 158
Love, J. G., *1171
Lovell, G., 1438
Lund, C. C., 863
Lund, M., 244
Lurie, L. A., *890
Luxton, R. W., 241
Lyttle, J. D., 237

M

Maaske, J. D., 1161
Macartney, D. W., 241
McBean, G. M., 642
McCall, E. F., 1164
McCance, R. A., 82
McCann, J. C., *1318
McCarroll, H. R., *517
McCarthy, K. C., *599
MacCarty, W. C., Jr., *733
McCausland, A., 1426
MacColl, W. A., 77
McCollum, E. V., *609
McCord, W. M., *683
McCormick, N. A., 235
McCreary, J. F., 1066
McCrum, D. S., 1065
McCullagh, E. P., 234
McDermott, L. J., 315
McDonald, E. J., 1342
Macfarlane, D., 722
McGahey, C. E., 569
McGavran, C. W., *182
McGavran, H. G., *1381
McGee, L. C., *1367, 1426
McGuinness, A. C., 396
McIntire, R. T., *1136
McIntosh, C. A., 1256
Mackay, H. M. M., 652
McKee, A. P., 988
McKelvey, J. L., *679
Macklin, M. T., 867
McLanahan, S., *1362
McLaughlin, C. W., Jr., 1069
McLennan, C. E., *679
McLoughlin, C. J., 154, 983
McMenemey, W. H., 313
MacNeal, W. J., 72
McNeil, C., 314
McRae, M. A., 72
Macy, I. G., *34
Madsen, J., 571
Maggi, A. L. C., 1437
Maggi, R., 571
Magiday, M., *192; (correction) 384
Mahaffy, A. F., 796
Maher, M. M., 238
Maingot, R., 867
Malm, P., 244
Mandelbaum, H., 147
Mannheimer, G., 553
Manso, C., 987, 1426
Mansur, H. D., Jr., *1122
Markson, D. E., 75
Marlett, N. C., 1426
Marrus, J., 316
Marsh, C., 1431
Marshall, M., *527
Marsteller, A. A., *968
Martin, G. J., 476
Martin, H., 74, 647
Martin, L. C., 1436
Martin, S. J., *843
Martini, E., 243
Martorana, N. F., 1426
Martzloff, K. H., 1057
Massey, W. E., 564
Master, A. M., 392, *1271
Masucci, P., 1164
Matheson, L., 482
Matte, R., 797
Matthes, K., 407
Matthews, D. N., 1256
Maxted, W. R., 652
May, C. D., 1066
Maynard, L. A., *692
Mazer, M., *364
Medrano, A. R., 320
Meier-Müller, H., 1073
Meister, E. J., 481
Melamed, A. M., 1067
Melnick, D., 650, 650
Mendelson, C. L., 987
Menten, M. L., 721
Merriman, J. R., 75
Merwarth, H. R., 649
Messina, S. J., 78
Metzger, F. C., 714
Meyer, J., *813
Meyer, R., 1057
Miescher, K., 485
Miley, G., 990, 1063
Miller, H. G., 1436
Miller, J. J., Jr., 316
Miller, M. M., *271
Miller, R. E., 565
Miller, S. (correction), 162
Millman, N., 78
Milzer, A., *27
Minor, A. H., 236
Mirizzi, P. L., 1162
Mitchell, W. G., 404
Mock, H. E., *498
Mock, H. E., Jr., *498
Möhlenbruch, A., 487
Möllerström, J., 487
Moench, L. G., 982
Moia, B., 868
Molina Mascias, E. J., 1438
Molomut, N., 792
Moniz de Bettencourt, J., 485
Monto, R. W., 239, 1341
Moore, J. E., 151
Moore, L. V., 720
Morley, C. W., 652
Morris, A. T., 564
Morrison, S., *738
Mortell, M., 652
Moschkowitz, L., 316
Moseley, V., 403
Moss, R. E., *25, 1062
Mousel, L. H., *895
Movers, F., 321
Muirhead, E. E., 404, 404
Murlin, W. R., 1066
Murphy, J. B., *107
Murray, M., 796
Myerson, A., 477, 1068, 1254

N

Navarro, A., 83
Necheles, H., *813
Nelson, M. C., 318
Nesbit, R. M., *1109
Nesselrod, J. P., 481
Neter, E., 76
Neubauer, C., 796
Neuwirth, A. A., 472
Newsom, A. A., 564
Nicholas, R., 316
Nickel, W. F., Jr., 233
Nielsen, H. E., 571
Nielsen, J., 1074
Norris, M., *116
Northrup, D. W., 1253
Novak, E., 1057
Novak, M., 316

O

Oakley, W., 483
Ober, F. R., *514
O'Brien, C. S., *190
O'Brien, E. J., 960, 1414
O'Conor, V. J., *579
Odom, G. L., 792
Ogden, H. D., Jr., 317
O'Hollaren, P., *269
Olsen, C. W., 235
Oppenheim, M., 478
Orgain, E. S., 231
Organe, G., 652
Ormiston, G., 991
Ornstein, G. G., 79
Orr, J. H., 405, 405
Ortmann, K. K., 162
Orton, H. B., *873
Osborne, S. L., 75
Oscherwitz, D., 1428
Osgood, E. E., 318
Osmun, P. M., 1340
Ostrow, E., 569
Overholt, R. H., 864

P

Page, I. H., *757
Paige, B. H., 151
Palmer, A. M., 793
Palmer, W. L., 231
Pará, M., 987
Pardee, H. E. B., 987
Paredes, L., 407
Park, R. G., 1435
Parker, F., Jr., 1163
Parkin, T., 1165
Parks, J., 988
Parr, E. I., 234
Parran, T., 933, *1224
Parson, W., 155
Parsons, W. H., 155
Pascucci, L. M., 402
Pasternack, J. G., 651
Patek, A. J., Jr., 237, 1253
Paterson, J. L. H., 570
Patey, D. H., 1070
Paullin, J. E., *1224
Peale, A. R., 649
Pearce, A. E., 982
Pearse, H. E., 81
Pedersen, H., 162
Pehl, B., 487
Pelner, L., 1252
Pembleton, W. E., 240
Penna, H. A., 987
Pennell, S. S., 232
Pepper, C., 927
Peragallo, I., 868
Perez, M., 407
Perlman, H. H., *1003
Perlow, S., 718
Perry, I. H., 983
Peterson, C. M., *828; (correction) 1051
Peterson, J. S., 79
Peterson, O. L., 719
Petrie, J. G., 1256
Petro, J., 157
Phillippedes, D., 1258
Piedra, J. H., 159
Pierpont, D. C., 1433
Pincock, A. C., 319, 1435
Pinner, M., 792
Pitman, L. K., *195
Platts, W. M., 1435
Plaut, J. A., 234
Plum, D., 241
Plume, C. A., 1426
Plummer, N., 477
Pobirs, F. W., *445
Pohl, J. F., 1157, 1162
Polayes, S. H., 153
Pollard, H. M., 77, 1067
Pollock, J., 153
Poppel, M. H., 1067
del Portillo, L., 159
Poston, M. A., 231, 721
Poth, E. J., *265
Potter, B. P., 313
Prandoni, A., *1015
Pratt, J. H., 77, *175
Pratt, J. P., 650

Preston, F. W., ★1021
Price, A. H., 1431
Prickman, L. E., ★431
Priestley, J. T., 481
Priestman, M. G., 233
Puestow, C. B., ★903
Purks, W. K., 155
Putnam, T. J., 1062

Q

Quaranta, A. P., 571
Quesada, R., 868

R

Race, R. R., 570
Rafferty, T. N., 1429
Raines, G. N., ★968
Rakov, H. L., 231, 399
Ramirez, M. A., 236
Rammelkamp, C. H., 1251
Ramsay, W. A., 241
Rankin, F. W., ★1135
Rascoff, H., ★1292
Raszkowski, H. J., ★431
Rathe, H. W., ★99
Ratliff, R. K., 794
Ratnoff, O. D., 1253
Ratschow, 992
Rausch, F., 653
Ray, B. S., 81
Razran, G. S., 226
Reed, G. B., 405, 405
Rehfuss, M. E., 987
Reich, C., 1427
Reich, N. E., 648
Reimann, H. A., 1163, 1336, 1431
Reinhard, M. C., 865
Reisman, H. A., 1068
Rekers, P. E., 74
Reynolds, W. J., ★343
Rezek, G. H., 866
Rhoads, C. P., 74
Rhoads, P. S., ★1125
Rich, A. R., 1249
Richards, J. R., 702
Richter, I. B., ★1373
Ricketts, H. T., 1341
Rinehart, J. F., 1430
Rinkel, M., 477
Rinzler, S., ★417
Ritterhoff, R. J., 1428
Ritvo, M., 477, 718, 1342
Robbins, C. M., 1068
Roberts, L. J., 238
Roberts, M. H., 1069
Roberts, S. E., 73
Roberts, V. M., 238
Robertson, J. D., 242, 1070
Robinson, A., ★886
Robinson, G. A., 478
Robinson, P., 1070
Robinson, S. K., 553
Robscheit-Robbins, F. S., 863
Roda, E., 1257
Rodaniche, E. C., 231
Rodenberg, A. H., 1339
Roffo, A. H., 1073
Roholm, K., 320
Romence, H., 1344
Rona, N., 1437
Rose, D. L., 1063, 1341
Rosenblum, L. A., 75
Rosenow, E. C., 1062
Rosenthal, J., 77
Rothman, M., ★803
Rottino, A., 1253
Rowland, V. C., ★818
Rowntree, L. G., ★1226
Rudder, F. F., ★807
Ruegsegger, J. M., 1430
Russin, L. A., 154

S

Sabin, A. B., ★506, ★1376
Saito, T. M., 316
Salzer, M., 227
Sánchez Rodriguez, J., 1257
Sánchez Yllades, L., 723
Sanderson, E., ★1356
Sandler, B. P., 309, 791
Sanes, S., 646
Sanger, P. W., 795
Santa Maria, J. C., 1438
Sante, L. R., 151
Saphir, O., 646
Sapirstein, M., ★348
Sargant, W., 242
Sarnat, B. G., ★1197
Sauer, H. R., 74
Saurer, A., 485, 868
Sawhill, J., 75
Sawyer, W. A., ★1189
Saylor, R. M., 234
Scannell, M., ★886
Scarff, R. W., 406
Schaefer, A. A., ★111
Schaeffer, M., 399
Schaeffer, R. L., ★1207
Schamberg, I. L., 794
Schenken, J. R., 317
Schiff, L., 238
Schmidt, B., 243
Schmidt, E. A., 865
Schmidt, H. W., ★895
Schmiemann, R., 321
Schneck, H., 1068
Schnizer, E., 1438
Schoch, A. G., 153
Schour, I., ★1197
Schreiner, B. F., 865, 1342
Schroeder, E., 162
Schuller, 797, 1346
Schulman, M., 1157
Schumacher, W., 868
Schwartz, E., 653
Schweiger, E., 1258
Scott, M., 156
Scott, R. W., ★1
Scott, W. C., 1067
Scully, J. P., 721
Seaton, D. R., 241
Secunda, L., 78
Seegal, D., 237
Sellek, A., 653
Selling, L. S., ★261
Severinghaus, A. E., 569
Sewall, K. W., 864
Shaar, C. M., ★666
Shaffer, B., 152, ★333
Shambaugh, G. E., Jr., 397
Shannon, W. F., 157
Shapiro, N., 238
Sharpey-Schafer, E. P., 319, 1435
Shay, H., ★740
Shea, J. J., ★745
Sheehan, H. L., 158
Sheplan, L., 154
Shils, M. E., ★609
Shure, N. M., 720
Shute, E., 564
Sigler, L. H., 1335
Silverstone, S. M., 567
Simmons, J. S., ★30
Simonds, J. P., ★89, 786
Simons, A. M., ★1315
Simpson, W. M., 1063, 1341
Sinclair, A. J. M., 1165
Singer, E., 1072
Siplet, H., ★740
Sirbu, A. B., 793
Slater, P., 242
Sloan, L., 151
Slocum, G. G., ★361, 403
Smith, C. E., 80
Smith, C. P., 406
Smith, C. W., 1065
Smith, E. M., ★358
Smith, F., ★352
Smith, G. P., 570
Smith, G. S., 241
Smith, H. W., 237
Smith, J. T., 1414
Smith, J. W., ★1282
Smith, L. M., 1434
Smith, L. W., 1430
Smith, P. H., 155
Smithburn, K. C., 796
Soffer, L. J., 1430
Sokoloff, N., ★1003
Solandt, D. Y., ★511
Soley, M. H., 719
Solomon, C., ★1354
Somolinos d'Ardois, G., 486
Sophian, L., 861
Soroka, M., 792
Sorter, H. K., ★813
Spaeth, E. B., ★659
Spence, A. W., 158
Spetz, M., ★602
Spotnitz, H., 314
Sprenger, K., 407
Spur, B., 316
Stadler, H., ★1384
Stähler, F., 486, 487
Stalker, W. S., 319
Stapleton, E. A., 642
Starr, A., 1340
State, D., ★275
Stearns, G., 1339
Stein, H. B., 242
Stein, K., 1258
Steinberg, I. R., 243
Steinberg, M. F., 719
Steindler, A., 154
Steiner, A., 232
Steinitz, K., 798
Sterling, J. A., 1067
Stewart, H. J., 81
Stewart, J. D., ★1025, 1249
Sticotti, S., 992
Stieren, E., ★26
Stilman, I., 320
Stobie, W., 313
Stocker, H. E. F., 1437
Stokes, J., Jr., ★16
Stokes, J. H., ★1093
Stone, H. B., ★1362
Stratman-Thomas, W. K., 399
Straumfjord, J. V., 401
Strauss, E., 719
Strauss, H. A., 314
Strickroot, F. L., ★1207
Strömbeck, J. P., 161
Stryker, W. A., 73
Stuart, W. J., 241
Studdert, T. C., 1436
Sujoy, E., 571
Sutherland, A. M., 484
Sutton, R. L., Jr., ★26
Swaim, L. T., 982
Swanson, P., 314
Sweet, L. K., 988

T

Taffel, M., 81
Talbot, S. A., 1251
Tamerin, J., ★803
Tandowsky, R. M., 1425
Tarnowski, A., 480
Taylor, E. S., ★119
Taylor, G. L., 570
Taylor, H. C., Jr., ★595
Taylor, H. E., 235
Taylor, J., 991
Taylor, J. S., 399
Tchertkoff, I. G., 79
Teahan, R. W., ★423
Teed, R. W., ★527
Tennilson, W. J., 1248
Terzich, I. M., 403
Thalhimer, W., ★1263
Thewlis, M. W., ★749
Thiele, G. H., 1343
Thomas, C. B., 398
Thomas, E. W., 1247
Thomas, J. E., ★735, 987
Thompson, G. J., ★1105
Thompson, M. R., 476
Thompson, S. A., 318, 569
Thomson, G. M., 1436
Thorn, G. W., 152
Thornhill, E. H., 647
Thornhill, P. S., 647
Thurmon, F. M., 480
Tidwell, H. C., 793
Tiffany, E. J., 1426
Tillman, A. J. B., ★587
Tobler, W., 320
Toomey, J. A., 156
Torpin, R., 1250
Torres-Umaña, C., 992
Trail, R. R., 158
Traut, H. F., 1057
Travell, J., ★417
Tupper, W. E., ★269
Turnbull, F. M., ★117
Turner, F. P., 648
Tysell, J. E., ★1212

U

Uihlein, A., 404
Ulin, A. W., ★826
Urbach, E., 1430
Urbanski, A. X., ★754
Usilton, L. J., ★1369

V

Vaccaro, H., 407
Van Amberg, R. J., 1342
van den Ende, J., 319
Van Liere, E. J., 1253
Varela Fuentes, B., 83
Vassiliadis, H. C., 719
Vaughan, S. L., 646
Vedoya, R., 1257
Vinson, P. P., 240
Vint, F. W., 241
Voegtlin, W. L., ★269
Volk, V. K., 313
Vollmer, H., 1162
Vonderlehr, R. A., ★1369
Vose, S. N., 864

W

Wagner, G. F., 1346
Wagner, H., 407
Wald, M. H., 227
Walker, B. S., ★25
Walker, G. A., 867
Walker, T. C., 1251
Wallace, J., 319, 1435
Wallis, A. D., ★583
Walter, F. J., 1157
Walters, W., ★666
Wammock, H., ★423
Wandall, H. H., 1166
Wangensteen, O. H., 1433
Warner, W. P., 1063
Warr, O. S., 399
Warren, S., 865
Waters, R. M., 1336
Watkins, R. M., ★1026
Watson, B. A., 649
Watson, E. M., 1432
Watson, J. R., ★690
Watt, J., 79
Waugh, J. M., ★1009
Weatherwax, J., ★423
Weed, L. A., 481
Weichsel, M., 396
Weinstein, J. J., 77
Weinstein, V. A., 866
Weiss, E., ★1081
Weiss, S., 1163
Welch, C. E., 569
Welch, H., ★361
Welt, L. G., 405
Wenstrand, D. E. W., 231
Wespi, H., 159
Wesselhoeft, C., 864
West, J. P., 233
Wetzel, J. O., 477
Wexler, G., 1247
Whatley, E., 319
Whipple, G. H., 863
Whitby, L. E. H., 82
White, P. D., 237, 642
Whitridge, J., Jr., ★729
Whittenberger, J. L., 1250
Widdowson, E. M., 82
Wiener, A. S., 232
Wilde, J. F., 483
Wilder, R. M., ★529
Wile, U. J., 794
Wilensky, A. O., 565
Wiles, F. J., 565
Wilkenschildt, J., 162
Wilkinson, F. A. H., 648
Wilkinson, P. B., 722
Wilkinson, S. A., 1425
Willenegger, H., 1437
Williams, B., 1345
Williams, G. E. O., 483
Williams, I. G., 319
Williams, R. H., 1250
Willis, H. S., 1429
Willis, R. S., 564
Wills, L., 652
Wilson, A., 570
Wilson, D. C., 796
Wilson, G., 235
Wilson, G. S., 991
Wilson, R. H., 1252
Wimhöfer, H., 486
Winkelstein, A., ★743; (correction) 1238, 1426
Winkelstein, L. B., 564
Winn, W. A., 1061
Winn, W. W., 564
Wiseman, B. K., 153
Wishart, D. E. S., ★1181
Witebsky, E., 314
Witt, W. J., ★683
Wittenberg, H. J., 1339
Wolf, A., 151
Wolf, S., ★670
Wolff, H. G., ★670
Wolkin, V., 154
Wolman, I. J., 316
Wolpaw, R., 650
Womack, N. A., 234
Wood, C. L., 309
Woodland, J. C., ★358
Woods, A. C., 151
Woods, R. M., 312
Woods, W. W., 317
Woodyatt, R. T., ★602
Wooler, G., 579
Wormall, A., 242
Wray, S. (correction), 162
Wright, D. O., ★1351
Wright, H. P., 1071
Wright, I. S., ★1015
Wright, J., 319
Wyatt, G. M., 151

Y

Yacorzynski, G. K., 156
Yannet, H., ★184
Yodice, A., 990
Young, H. H., ★1171
Young, J., 484

Z

Zeisler, E. B., 786
Zinn, F. T., 650
Zinninger, M. M., 238
Zucker, G., 792

INDEX TO PAGES

OF THE JOURNAL, ACCORDING TO WEEKLY ISSUES—VOLUME 120, SEPTEMBER—DECEMBER, 1942

Pages	No.	Date
1— 88	1	Sept. 5
89— 168	2	Sept. 12
169— 250	3	Sept. 19
251— 326	4	Sept. 26
327— 412	5	Oct. 3
413— 492	6	Oct. 10
493— 578	7	Oct. 17
579— 658	8	Oct. 24
659— 728	9	Oct. 31
729— 802	10	Nov. 7
803— 872	11	Nov. 14
873— 996	12	Nov. 21
997—1080	13	Nov. 28
1081—1170	14	Dec. 5
1171—1262	15	Dec. 12
1263—1350	16	Dec. 19
1351—1500	17	Dec. 26

CONTROL OF GONORRHEA

A high percentage of cures in both male and female patients has been observed with sulfathiazole. This drug is of great value in preventing complications.

Adequate dosage is important. Three simple schemes of treatment have been followed:

(a) 1 Gram four times daily for five days

(b) 1 Gram four times daily for the first day and 0.5 Gram four times daily for the next eight days

(c) 0.5 Gram four times daily for ten days

Before the patient is dismissed cultures should be made of urine sediments and prostatic secretion in men and of exudates from the cervix and the para-urethral (Skene's) glands in women. Studies of smears are also advisable.

Specify **SULFATHIAZOLE**
WINTHROP

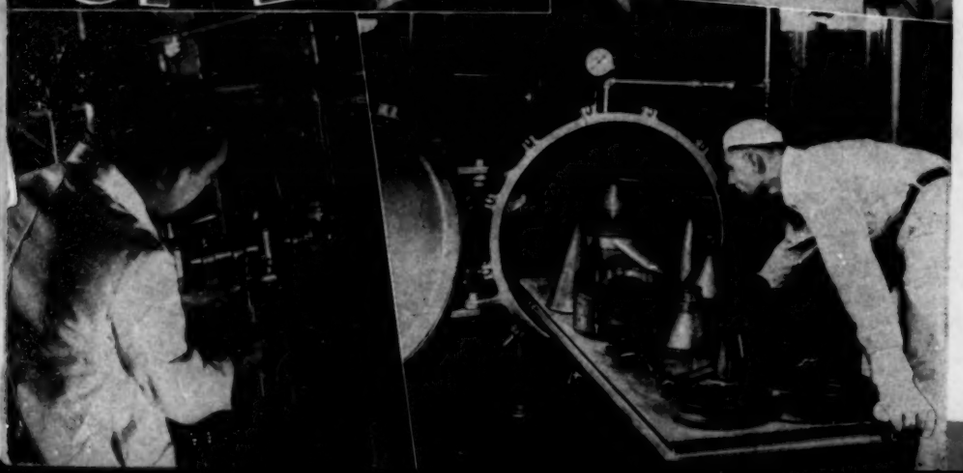
Winthrop **CHEMICAL COMPANY, INC.**

Pharmaceuticals of merit for the physician

NEW YORK, N. Y. • WINDSOR, ONT.

The Unseen Quality of DEXTRI-MALTOSE

THREE DECADES OF BACKGROUND



Dextri-Maltose is no ordinary carbohy
Step by step, its manufacture is surrou
with every care and precaution, ev
through long years of experience and rese

Unseen by physician and patient are n
ous safety factors, the practical effect of
nevertheless is present in every packa
Dextri-Maltose. To name a few of these:

1. Dextri-Maltose is sampled for bacteriologica
ing before drying.
2. Steam at 20 pounds pressure sterilizes
Maltose filter presses which remove protei
and indigestible residue.
3. Blood agar tests are made to insure abse
hemolytic cocci.
4. Dextri-Maltose containers are paper-wrapp
prevent the cans from accumulating dust.
5. Bacteriological tests are made in a steam-w
plating room, the air of which is filtered.
6. Dextri-Maltose containers are automatically
and closed without human handling of the pr
7. The direct microscopic test which Dextri-M
receives is but one kind of 6 microbiological
which it must routinely meet.
8. The interiors of the large converters in which
tri-Maltose is processed are thoroughly scru
prior to steam sterilization.
9. Steaming under 20 pounds pressure sterilize
converters for processing Dextri-Maltose.
10. After being packaged, Dextri-Maltose is he
storage and released only after final app
from the bacteriological checking laboratory.
11. Portable equipment used in manufacturing D
Maltose is sterilized in autoclaves at 20 p
live steam pressure for 20 minutes.
12. Dextri-Maltose is tested routinely to check
keeping quality of prepared feedings held i
frigeration for 24 hours.

Among other important measures in the
tary control of Dextri-Maltose is the vac
tion of all employees for smallpox and typ
The entire personnel also receive Mantoux
and x-rays of the lungs. Every new empl
must pass complete medical examination

It is, therefore, no mere coincidence
Dextri-Maltose enjoys greater pediatric acc
ance today than ever before. By cons
search and everlasting watchfulness,
keep pace with pediatric progress, an
forth every human effort to merit the
respect and confidence of the medic
sion.

The Measure of Economy
Is Value, Not Price

MEAD JOHNSON & CO